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The Impact of COVID-19 on households and firms in the MENA region: the case of Sudan

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Abstract

This paper aims to discuss the status of households and firms during the COVID-19 pandemic in Sudan as a case study of the MENA countries. We use new primary data obtained from ERF COVID MENA Monitor Household Survey (2021) and the World Bank and Sudan Central Bureau of Statistic High Frequency Survey on COVID-19 (2020). We explain that during the COVID-19 pandemic (June–July 2020) the loss of jobs for the majority and nearly two thirds of households, unemployment and changing jobs was because of business or government closures due to coronavirus legal restrictions. We show the loss of payment for nearly a fifth of households, partial payment for nearly half of households, and loss and reduction of households' means of livelihood or source of income since mid-March 2020 from non-farm family business, income from properties, investments or savings, and income from family farming, livestock or fishing. micro, small and medium size enterprises suffered from temporary or permanent closure of establishments, substantial decrease or stagnation in sales. We explain the increase in temporary or permanent layoff/suspension of workers, reduced hours, reduced wages, delays in wage payment and limited provision of social protection/insurance between April andAugust 2021. We suggest careful interpretation of our results because during COVID-19 pandemic Sudan not only suffered from COVID-19 pandemic but also simultaneously suffered from a critical economic crisis, economic instability and political instability that started even before the COVID-19 pandemic. We recommend increasing government support to manage COVID-19 economic and social impacts on workers in Sudan.

Keywords
COVID-19, labour market, households, firms, Sudan.

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D19, D22, J21, J29, J31, J64.

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Résumé
Cette étude discute des conditions des ménages et des entreprises pendant la pandémie de COVID-19 au Soudan en tant qu'étude de cas des pays dans la région du Moyen Orient et Afrique du Nord (MENA). Nous utilisons de nouvelles données primaires obtenues à partir de l'enquête ERF COVID-19 MENA Monitor Household Survey (2021) et de l'enquête de la Banque mondiale et du Bureau central du Soudan (2020). Pendant la pandémie de COVID-19 (juin-juillet 2020), la perte d'emplois pour la majorité et près des deux tiers des ménages, le chômage et les changements d'emploi étaient dus à la fermeture d'entreprises/gouvernements en raison de restrictions liées au coronavirus. Nous montrons une perte de revenu pour près d'un cinquième des ménages, de paiement partiel expérimenté par près de la moitié des ménages, et de la réduction des moyens de subsistance ou de la perte de sources de revenus des ménages depuis la mi-mars 2020 provenant des entreprises familiales non agricoles, des revenus de la propriété, des investissements ou de l'épargne, des revenus de l'agriculture familiale, de l'élevage ou de la pêche. Les micro, petite et moyenne entreprises ont souffert de la fermeture temporaire ou définitive d'établissements, d'une baisse substantielle des ventes ou d'une stagnation. Nous remarquons une augmentation des mises à pied/suspensions temporaires ou permanentes des travailleurs, la réduction des heures de travail, la réduction des salaires, les retards dans le paiement des salaires et la fourniture limitée de protection/assurance sociale entre (avril et août 2021. Nous suggérons une interprétation prudente de nos résultats car, pendant la pandémie de COVID-19, le Soudan a non seulement souffert de la pandémie de COVID-19, mais a également souffert simultanément d'une crise économique critique, d'une instabilité économique et d'une instabilité politique qui ont commencé avant même la pandémie de COVID-19. Nous recommandons d'augmenter le soutien gouvernemental pour gérer les impacts économiques et sociaux de la COVID-19 sur les travailleurs au Soudan.

Mots-clés
COVID-19, marché du travail, ménages, entreprises, Soudan.

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Dedication

To the Soul of my beloved kind mother Alawia, On Thursday 8th of April 2021, she passed away due to coronavirus (COVID-19) and broke my heart, No words are ever sufficient to express my sad-ness and my sorrowfulness and to measure the immeasurable impact of coronavirus (COVID-19) that has caused the death of my beloved kind mother.

Introduction

The rapid spread of the coronavirus (COVID-19) throughout the world and the declaration of the coronavirus (COVID-19) as a global pandemic caused critical consequences in all countries. This confirms the importance of comprehensive investigation of the economic and social impacts of the COVID-19 crisis in the global economy.

This paper discusses the status of households and firms during the COVID-19 pandemic period in Sudan. In particular, this paper presents descriptive evidence for the first two years since start of the pandemic on the status of household's income, labour market status, employment benefits, working conditions, unemployment, and social protection to workers. Some of these statistics are also disaggregated by gender. The study also aims to explain the condition of household enterprises, particularly describing workers livelihoods, income, labour market status, employment, and working conditions and policy measures rom the opinions of the respondent firms during the COVID-19 pandemic in Sudan. The study also aims to investigate the firms' current status of work and business operations, sales, revenues, workers, and access to inputs defined by firms' characteristics (defined by firm size) during the COVID-19 pandemic in Sudan. The study aims to discuss the main challenges facing firms due to COVID-19, the effects on firms' expectations for the future, the effects of lockdowns, policy measures, and the policy response and government support for firms in Sudan.

This research provides a comprehensive and in-depth investigation, filling a gap in the literature on the latest few years of economic activity experienced by households and firms in Sudan. Another advantage of this research is to add to the literature by investigating the status of households defined by gender and the status of firms defined by firms' characteristics (including firm size) during the COVID-19 pandemic. Another merit of this research and a novel element of our analysis is that we use new primary data to conduct the analysis. These are obtained from the first and second waves of the ERF COVID-19 MENA Monitor Data to discuss and compare the status of households and firms in Sudan (April-August 2021) and the World Bank and Sudan Central Bureau of Statistic High Frequency Survey on COVID-19 (2020) during the COVID-19 pandemic. Another merit is that, from a policy perspective, this research provides useful policy recommendations to implement a more comprehensive and coherent strategy to adopt effective and preventive policy measures. It includes suggestions about sound economic and social measures to curb the further spread of the COVID-19 pandemic in Sudan and it points to increase government support to manage the economic and social impacts on households, workers and firms in Sudan.

Our results from the World Bank Survey on COVID-19 (2020) show the status during the COVID-19 pandemic, mainly, employment status that appears from the loss of jobs for the majority and nearly two thirds of households during June – July 2020. We explain that the main reason for the households' loss of job, unemployment and even changing jobs happened in connection to business or 'government closures due to coronavirus legal restrictions. In addition to the loss of payment for nearly fifth of households, partial payment for nearly half of households, and loss and reduction of households' means of livelihood or source of income since mid-March 2020 from non-farm family business, income from properties, investments or savings, and income from family farming, livestock or fishing. The status of the micro, small and medium size enterprises appears from temporary or permanent closure of establishments, substantial decrease in sales or stagnation in sales. Our results from ERF COVID MENA Monitor Survey data (2021) show the status of the labour market and working conditions during the COVID-19 pandemic period that appears from the increase in temporary or permanent layoff/suspension of workers, reduced hours, reduced wages, and delays in wage payment for workers in Sudan between April 2021 and August 2021. These results are consistent with the results in the MENA countries. Between April 2021 and August 2021 the delay in wage payment is more than doubled, the temporary layoff/suspension of workers increased from nearly a tenth in April 2021 to nearly a fifth in August 2021. In August 2021 the status of workers in business indicates temporary layoff/suspension for nearly a fifth of workers, permanent layoff/suspension for nearly a tenth of workers, and delay and change in wage payment for nearly a quarter of workers. Attainment of social insurance decreased from nearly a third of all households in April 2021 compared to nearly a quarter of all households in August 2021. Our results concerning the temporary or permanent closure of business due to factors related to COVID-19, reduction in business working hours, and the challenge facing businesses due to loss in demand, and access to customers due to mobility restrictions in Sudan are consistent with the results across MENA countries. From a policy perspective, our findings that the most common types of support needed included business loans, salary subsidies and reduced/delayed taxes in Sudan are consistent with the results in the MENA countries. Our findings regarding limited provision of social protection (social insurance) and the importance of supporting social protection for workers in Sudan are consistent with the findings in other MENA countries.

We are aware that our results should be interpreted carefully in view of the fact that during the COVID-19 pandemic period Sudan not only suffered from the COVID-19 pandemic but also simultaneously suffered from a critical economic crisis caused by the economic and political instability that started even before the COVID-19 pandemic. This implies that it is hard to separate the impacts of the COVID-19 pandemic and the impacts of the critical economic crisis. This also implies that it is difficult to determine whether the reported deterioration is due to factors related to the COVID-19 pandemic or due to other factors related to the critical economic crisis.

From policy perspective, the findings from the ERF COVID MENA Monitor Sudan Survey data (2021) indicate from the opinion of the respondent firms the most needed policies to support business over COVID-19 crisis includes subsidized provision of specific products, inputs or services, business loans, rental or utilities subsidies or deferrals, reduction or delay in taxes, cash transfers or unemployment benefits and partial or total salary subsidies. From a policy perspective,, the results from the World Bank Survey on COVID-19 (2020) show that from the establishments' perspective the most needed government policies to support the business over the COVID-19 crisis should be actions such as: subsidized provision of products and services by suppliers; cash transfer and unemployment benefits; deferral of rent, mortgage, or utilities; fiscal exemptions or reductions; tax deferral; access to new credit; wage subsidies, salary subsidies; loans with subsidized interest rates; deferral of credit payments and suspension of interest payments.

This research is organized in six sections. Section 1 provides introduction, including the statement of the research problem and value added; the research questions and data, methodology and structure of the research. Section 2 presents the literature review. Section 3 shows background about Sudan economy and COVID-19 pandemic in Sudan, mainly, shows an overview of the incidence and spread of Corona Virus Pandemic (COVID-19) in Sudan. Section 4 discusses the status of households during the COVID-19 pandemic period in Sudan (using Household Survey). Mainly, this section discusses the labour market status in Sudan during the COVID-19 pandemic period, the status of employment and unemployment, the working conditions, status in business and working status in business, wages, income and revenue, income, households', employers' provision and contribution to social protection of workers, government support and social support over COVID-19 crisis and finally explains the most needed policies to support business over COVID-19 crisis in Sudan. Section 5 discusses the status of micro, small and medium size enterprises (MSME) during the COVID-19 pandemic period in Sudan (using Enterprises Survey). Finally, section 6 provides the conclusion.

1. Setting the scene

1.1. Specific research questions

This paper discusses the following questions on the status of households and firms during the COVID-19 pandemic period in Sudan:

1. How has the status of household and individual income, source of income, labour market status, employment benefits, working conditions, unemployment, social protection and wages and income in Sudan been affected by the COVID-19 pandemic? How the effects of COVID-19 on households in Sudan vary according to household characteristics (defined by gender)?
2. How has the status of household enterprises, workers in the formal and informal economies, workers' livelihoods, income, labour market status, employment, and working conditions in Sudan been affected by the COVID-19 pandemic? How have policy measures for workers been applied in Sudan?
3. How has firms' current status of work and business operations, sales, revenue, workers, and access to inputs in Sudan been affected by the COVID-19 pandemic? How the effects of COVID-19 on firms differ according to firms' characteristics (defined by firm size) in Sudan?
4. What are the main challenges facing firms due to COVID-19 in Sudan? How have lockdowns or the stringency of policy measures affected firms in Sudan? What are the main policy response and government support for firms in Sudan?

1.2. Data

This research uses new primary data obtained from the first wave and second wave of the Economic Research Forum (ERF) COVID-19 MENA Monitor Household Survey Data (April –August 2021). Moreover, it includes firms' data and household data for the case of Sudan from the first round of the World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020).[1, 2]

[1] The first wave (the base wave) of the dataset was collected in April 2021 and published in June 2021, and the second wave of the dataset was collected in August 2021 and published in November 2021 as part of the ERF COVID-19 MENA Monitor Household Survey (CMMHH) (April-August 2021). The sample of household survey covering 2400 (April 2021) and 2001 (August 2021) covering households and individuals mobile phone users (aged 18-64) in the first wave and in the second wave respectively.

[2] The World Bank Household survey and Enterprises survey were implemented jointly by the Central Bureau of Statistics (CBS) and the World Bank during August 2020. As face-to-face surveys were not feasible, the survey was conducted using mobile phones and covers all 18 states of Sudan. The World Bank Household survey aims to monitor the impact of coronavirus on the daily lives of Sudanese, who are being interviewed, with a panel of 4,032 households, representative at the national level. Round 1 of data collection was conducted during June 16–July 5, 2020 (about three months after the declaration of the outbreak in Sudan and lockdown). This sample allows to draw statistically inferences of the Sudanese population at the national and rural/urban levels. The objective of the World Bank Sudan Enterprise High Frequency Survey on COVID-19 is to quickly collect enterprise-level information, using phones and covers Khartoum State, where most of the Sudanese enterprises are located, to monitor the crisis and assess the dynamics of the impacts of COVID-19 on Micro, Small, and Medium Enterprises (MSMEs) in Sudan. The survey aims to monitor the impact of coronavirus on the operation of enterprises that are being interviewed, with a panel of nearly 500 formal enterprises. See the World Bank and the Central Bureau of Statistics (CBS) (2020) 'Effects of COVID-19 on Sudanese Enterprises,' p.1. See also The World Bank and the Central Bureau of Statistics (CBS) (2020) 'Socioeconomic Impact of COVID-19 on Sudanese Households,' p. 1.

The data from the ERF COVID-19 MENA Monitor Household Survey (CMMHH) (April 2021-August 2021) and from the World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020) the household questionnaire provides useful and suitable information to discuss the impact of COVID-19 pandemic on households in Sudan. It provides background information: mainly, demographics information and information about households' characteristics, labour market status, household and individual income, wage, and social protection, employment, income, source of income, changes in employment, working condition, job loss and loss in income sources due to COVID-19. It focuses on work, activities, workers, and wageworkers and the changes and challenges due to COVID-19. It focuses on household enterprises and business: (formal and informal economic activities, operations in February 2020, COVID-19 impact on operations, revenue, employment, policy response/ government support, and expectations for the future). The first and second waves of the ERF COVID-19 MENA Monitor Household Survey include a questionnaire that provides data on the socio-economic and labour market impact of the COVID-19 pandemic on households. It covers the demographic and household characteristics, education and occupation, labour market status, income, social safety net, employment and unemployment detection. It includes a worker module (on occupation, job formality, impact of COVID-19 on employment, work from home), and a household enterprise module (on industry, employment, sales/revenue, impact of COVID-19 on business, and policy response). In addition, the survey's data includes comparable data that permits the study of various phenomena over time and permits comparison across Arab countries (Egypt, Tunisia, Jordan, Morocco and Sudan). All COVID-19 MENA Monitor surveys incorporate similar survey designs, with data on households and individuals within those households.

1.3. Research methodology

The research applies both the descriptive and comparative approaches to the analysis of qualitative and quantitative data. It inspects new primary data obtained from the first round of the World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020) and the first and second waves of the ERF COVID-19 MENA Monitor Household Survey (CMMHH) (April 2021- August 2021). In order to answer Question (1): the status of households during the COVID-19 pandemic we use the results obtained from the ERF CMMHH and the World Bank households questionnaire and use the indicators (household and individual income and income source, labour market status, employment benefits, working conditions, unemployment, social protection (social insurance and social safety net), wages and income and households characteristics (defined by gender). In order to answer Question (2): the status of household enterprises during the COVID-19 pandemic, we use the indicators (workers in the establishments, workers' livelihoods, income, labour market status, employment benefits, and working conditions and applied policy measures for workers). In order to answer Question (3): the status of firms during the COVID-19 pandemic period, we use the results from the firms' questionnaire and we use the indicators (firms' current status of work and business operations, sales, revenue, workers, and firms' characteristics (defined by firm size). In order to answer Question (4): the main challenges facing firms due to COVID-19, and the main policy response and government support for firms we use the results obtained from the firms' questionnaire.

2. Literature review

Many studies in the international literature explain the impact of COVID-19 in the global economy, arguing that the world is facing the worst public health and economic crisis in a century. The economic ramifications could rival those of the Great Depression in the 1930s (IMF, 2020). As COVID-19 (coronavirus) has spread across the world, the World Bank has projected extreme poverty to increase for the first time since the Asian crisis in 1998, putting at risk the global goal of reducing extreme poverty to 3% of the world's population by 2030. The duration and scale of impacts are highly uncertain and expected to vary widely within and across countries and over time, which makes it really important to closely monitor the impacts of the crisis on households and firms for designing policy responses.[3]

Since early 2020 COVID-19 has led to severe and acute losses in many economies around the world due to illness and government-mandated social distancing orders. The impact and duration of the economic crisis on individual households, resulting from the pandemic, is difficult to predict as many uncertainties surround the crisis duration, i.e. length of "stay-at-home" orders, as well as impacted industries and the post-crisis consumption and recovery. There is a growing concern in the international literature to investigate the economic impact of COVID-19, in both emerging and developed countries. Due to widespread business closures, especially in lower income populations, national economies are expected to contract, leading to a dramatic rise in unemployment and poverty rates. A report from the World Bank estimated that 11 million people could fall into poverty across East Asia and the Pacific (World Bank 2020). Analysing the effect of the pandemic on poor communities across four continents, (Buheji et al. 2020) estimates that 49 million individuals will be driven into extreme poverty in 2020 (living on less than $1.90 per day). Some studies investigate the socio-economic impacts of COVID-19 on household consumption and poverty (Martin**,** Markhvida, Hallegatte**,** and Walsh, 2020).

Several studies in the international literature discuss the impacts of COVID-19 on household in different world countries and regions. For instance, some studies investigate the impact of COVID-19 on households on ASEAN countries, mainly on households in eight countries: Cambodia, the Lao People's Democratic Republic, Indonesia, Malaysia, Myanmar, the Philippines, Thailand, and Viet Nam, (Morgan and Trinh, 2021). Some studies investigate the impact of COVID-19 on East Asia and the Pacific (World Bank 2020). Other studies examine the impacts of COVID-19 on households across America and show that the coronavirus pandemic has had unprecedented, widespread impacts on households across America, raising concerns about the ability to weather long-term health and financial harms.[4]

Several recent studies in the MENA countries based on the Economic Research Forum (ERF) COVID-19 MENA Monitor Data (2020-2021) explain the economic impact of COVID-19 in households and firms in the MENA countries labour markets (e.g. Jordan, Egypt, Morocco and Tunisia) (cf. Krafft, Assaad, and Marouani, 2021a; b; c). Several studies discuss the impact of COVID-19 on Middle Eastern and North African (MENA) (cf. Krafft, Assaad, and Marouani, 2021a; b; c). The results of these studies show that the impact of COVID-19 on MENA Labour Markets is demonstrated from the fact that wage workers in Egypt, Jordan, Morocco, and Tunisia, particularly informal workers, have experienced layoffs and reduced hours and earnings due to COVID-19 (cf. Krafft, Assaad, and Marouani, 2021a). The effects of COVID-19 appears from the fact that although the majority of employers and the self-employed report their businesses are open and operating, hours are reduced and the majority report lower revenues compared to 2019, the effects of COVID-19 also appears from the fact that almost half of households reported their income had decreased compared to February 2020, and in most countries the poor experienced the largest income losses (cf. Krafft, Assaad, and Marouani, 2021a). The Impact of COVID-19 on Middle Eastern and North African Labour Markets, mainly in the vulnerable workers, small

3 See Carolina Sánchez-Páramo and Ambar Narayan (2020).

4 See the Impact of Coronavirus on Households across America: (https://www.rwjf.org/en/library/research/2020/09/the-impact-of-coronavirus-on-households-across-america.html) (Accessed 30 April 2021)

entrepreneurs, and farmers in Morocco and Tunisia the effects of COVID-19 is demonstrated from the temporarily laid off, experienced reduced hours, reduced wages, and delays in pay (Krafft, Assaad, and Marouani, 2021b). The impact of COVID-19 on wage workers has been minimal for public sector workers, but substantial in the private sector, and especially for informal workers, irregular workers, and those working outside establishments, farmers, the self-employed, and employers have experienced particularly sharp decreases in their revenues (cf. Krafft, Assaad, and Marouani, 2021b).

Some studies investigate the Impact of COVID-19 on MENA labour markets, with particular focus on micro, small, and medium enterprises (cf. Krafft, Assaad, and Marouani, 2021c). among the four MENA countries (Egypt, Tunisia, Morocco and Jordan), the economic contraction in 2020 ranged from 8.8% in Tunisia and 6.3% in Morocco to 1.6% in Jordan, only Egypt managed to maintain a positive growth rate of 1.5% in 2020 (cf. Krafft, Assaad, and Marouani, 2021c). In the contracting countries, the lockdown resulted in large losses in the second quarter of 2020, with varying degrees of recovery in the third and fourth quarters, the tourist and transport industries were the hardest hit. The tourism-related industries were the most negatively affected with regards to closures, reduced hours, and income losses. Microenterprises were the most likely to be closed due to COVID-19. If open, micro and small firms were more likely to have reduced hours than medium firms. Small enterprises were more affected by revenue losses than either micro or medium enterprises, with the exception of Tunisia where microenterprises were more affected. The most important challenge facing businesses across countries was the loss in demand, followed by access to customers due to mobility restrictions. From over half (Tunisia) to three quarters (Morocco) of firms reported not applying for nor receiving any government assistance, although less than a tenth (Tunisia) to a third (Egypt) said no government support was needed. Business loans were the most common types of support received and needed, but salary subsidies were also commonly received in Tunisia and mentioned as needed in both Morocco and Tunisia. Reduced/delayed taxes were the next most commonly mentioned needed measure in all four countries. (cf. Krafft, Assaad, and Marouani, 2021c).

Some studies explain the social protection measures related to COVID-19 in the MENA countries (cf. Krafft, Assaad, and Marouani, 2021a; b). The results of these studies indicate that in most countries, social protection measures have reached only a small fraction of the population, a declining share from November 2020 to February 2021, and social protection systems remain poorly targeted (cf. Krafft, Assaad, and Marouani, 2021a). Although some workers and families are receiving government support, many in MENA are falling through a sparse safety net and experiencing large decreases in their income (cf. Krafft, Assaad, and Marouani, 2021b). Additional social protection, as well as better targeting of support, will be needed to cushion the economic impacts of the pandemic and ensuing economic challenges, social protection that is carefully targeted to those low-income households experiencing job and income losses is much needed (cf. Krafft, Assaad, and Marouani, 2021b, a).

Due to the impact of COVID-19, economic growth in Jordan potentially will come to a halt this year. This comes as a result of the COVID-19 pandemic outbreak. Government imposed an economic lockdown which restricted non-essential economic activities and people's movement in order to contain the virus. A SAM multiplier model was used to estimate the economic impact of the lockdown and to explore potential recovery pathways for the Jordanian economy. Some of the key findings from this modelling exercise are: National GDP is estimated to have fallen by 23 per cent during the lockdown period. The services sector was hardest hit, seeing an estimated drop in output of almost 30 per cent. Food systems in Jordan are estimated to have experienced a reduction in output by almost 40 per cent. Employment losses during the lockdown were estimated at over 20 per cent, mainly driven by job losses in services, followed by agriculture. Household income fell on average by around one-fifth due to the lockdown, mainly driven by contraction in service sector activities, by slowdown in manufacturing activity, and by lower remittances from abroad. GDP growth rates for Jordan's economy will continue to be negative through 2020, ranging from -5.7 to -7.4 per cent, depending on the speed of economic recovery. A slow pace of recovery is expected. This economic recovery offers opportunities for fostering sustainable economic transformation and structural change. Economic policies and incentives should be directed towards more economic diversification, greater resilience to withstand economic shocks, and job creation.[5] The impact of COVID-19 on the Egyptian economy appears from the effects on economic sectors, jobs, and households. For instance, the COVID-19 crisis may lead to a 1.1 per cent decline in Egypt's GDP during the 4th quarter (April to June) of the 2019/20 fiscal year, compared to the same quarter in 2018/19. Without the Government of Egypt's COVID-19 emergency response package, GDP.[6] The impact of COVID-19 on Tunisia's economy, Agri-food system, and households: The COVID-19 crisis is expected to lead to a 46.4 per cent decline in Tunisia's GDP during the 2nd quarter of 2020 (April to June). The industrial sector will be hit hardest, with output falling by 52.7 per cent, followed closely by services (-49.0 per cent).[7]

3. Background about Sudan economy and COVID-19 Pandemic in Sudan

Before discussing the impacts of COVID-19 in Sudan, it will be useful to show some stylized facts about Sudan economy and to explain some stylized facts about the incidence of COVID-19 in Sudan.

3.1. Background about Sudan economy

Since its independence and over the past decades, Sudan suffered from the prevailing conditions characterized by the political and economic instability and uncertainty conditions in Sudan. According to the World Bank (2021) for most of its independent history, the country has been beset by internal conflicts that weakened its ability to sustain economic growth. Under the terms of a comprehensive peace agreement in 2005, South Sudan seceded in 2011 and became the 54th independent State of Africa. The secession of South Sudan induced multiple economic shocks. In particular, the loss of the oil revenue that accounted for more than half of Sudan's government revenue and 95% of its exports. This has reduced economic growth, and resulted in double-digit consumer price inflation, which, together with increased fuel prices, triggered violent protests in September 2013. The outbreak of civil war in South Sudan damaged both economies depriving Sudan of much needed pipeline revenues, the war damaged oil infrastructure, further eroding revenue availability to Sudan.[8] Sudan economy overview implies that Sudan has experienced protracted social conflict, civil war, and, in July 2011, the loss of three-quarters of its oil production due to the secession of South Sudan. The oil sector had driven much of Sudan's GDP growth since 1999. For nearly a decade, the economy boomed on the back of rising oil production, high oil prices, and significant inflows of foreign direct investment. Since the economic shock of South Sudan's secession, Sudan has struggled to stabilize its economy and make up for the loss of foreign exchange earnings. The interruption of oil production in South Sudan in 2012 for over a year and the consequent loss of oil transit fees further exacerbated the fragile state of Sudan's economy. On-going conflicts in Southern Kordofan, Darfur, and the Blue Nile states, lack of basic infrastructure in large areas, and reliance by much of the population on subsistence agriculture, keep close to half of the population at or below the poverty line. Sudan was subject to comprehensive US sanctions, which were lifted in October 2017. Sudan also faces high inflation, which reached 47% on an annual basis in November 2012 but fell to about 35% per year in 2017.[9]

Consumer prices continue to rise in Sudan, rising consumer prices and the depreciating pound will have a serious impact on Sudan's economic recovery. Rising fuel prices will place further upward pressure on inflation, stoking public frustration. Continuous food price hikes led to the December 2018 demonstrations which resulted in the removal of previous government from power in April 2019. This

5 See Raouf, Elsabbagh, and Wiebelt (2020).

6 See Breisinger, Raouf, Wiebelt, Kamaly, and Karara (2020).

7 See ElKadhi, Elsabbagh, Frija, Lakoud, Wiebelt, and Breisinger (2020).

8 See https://www.worldbank.org/en/country/sudan/overview#1 (Last Updated: Sep 29, 2021) (Accessed 16 October 2021).

9 Source: See https://www.economy.com/sudan/indicators#ECONOMY (accessed on 16 October 2021)

led to the formation of a Transition Government in September 2019, and the power-sharing agreement between the military and civilian forces expected to last 39 months. In addition to the political and economic uncertainty, Sudan, like the rest of the world, has been experiencing the unprecedented social and economic impact of the COVID-19 (coronavirus) pandemic. The COVID-19 shock is expected to be transitory with potential recovery possible in 2021 but the overall adverse economic impact on Sudan will be substantial. The economic impact of COVID-19 includes the increased price of basic foods, rising unemployment, and falling exports. Restrictions on movement are making the economic situation worse, with commodity prices soaring across the country. According to the International Monetary Fund the economic situation has already forecasted an overall economic stagnation in 2020 in Sudan.[10] The Transitional government is planned to govern the country during a 39-month transitional period. Social tensions will remain high, as the public remains wary about political and economic uncertainty during the transitional period. The coronavirus (Covid-19) pandemic has deepened economic woes, but prospects will improve in 2021 as US sanctions are removed.[11]

According to Sudan Economic Outlook (2021) the recent macroeconomic and financial developments indicate that real GDP was estimated to have shrunk by 8.4% in 2020 after shrinking by 2.5% in 2019. The COVID–19 pandemic's effect on commodity prices, trade, travel, and financial flows contributed to subdued economic activity. Reduced private consumption and investment as well as disruptions in value and supply chains also affected growth. Containment measures such as lockdowns took their toll on the service sector, with 58% of GDP, and the industrial sector, with 22%. Inflation escalated to an estimated 124.9% in 2020, compared with 82.4% in 2019, mainly due to a 118% currency depreciation and monetization of the fiscal deficit. Public revenues decreased by 35% in 2020, while the pandemic spurred a big increase in spending, worsening the fiscal deficit to 12.4% in 2020, compared with 11.3% in 2019. The fiscal deficit, which accounted for 40% of government revenues in 2019, has primarily been financed by advances from the central bank. Reduced demand among Sudan's major trading partners in the Persian Gulf lowered exports, but imports also declined. As a result, the current account deficit narrowed to 12.6% of GDP from 15.1% in 2019. Private sector credit as a percentage of GDP dropped by 4 percentage points during the first half of 2020, reflecting the pandemic-related economic slowdown. In July 2020, the government adopted an accommodative monetary policy by reducing the cash reserve ratio, boosting credit to private sector to an estimated 12% of GDP at the end of 2020, still below the 14% of GDP it reached in 2019. While non-performing loans decreased from 3.5% in 2019 to 3% in 2020, returns on assets decreased to 1% from 1.8%, reflecting reduced profitability due to the sharp economic contraction. Subdued economic activity increased poverty from 48.3% in 2019 to an estimated 56% in 2020. Sudan's economy is projected to remain in recession in 2021, with a return to modest growth expected in 2022.[12]

3.2. The incidence and spread of Corona Virus Pandemic (COVID-19) in Sudan

Sudan, like the rest of the world, has been experiencing the unprecedented social and economic impact of the COVID-19 pandemic. The Sudanese authorities attempted to act quickly in the face of the spreading virus. In March 2020 the Government established a high-level emergency committee to oversee the operations to deal with the COVID-19 pandemic. Sudanese authorities attempted to act quickly in the face of the spreading virus. With the confirmation of the first COVID-19 case in Sudan on March 13, the Government of Sudan declared a 'state of emergency'. On March 14, 2020, the Government announced closure of schools and prohibition of mass gatherings. Two days later, it closed airports, ports, and land crossings; banned travel between states; and required one-month quarantine for incoming travellers. A partial lockdown was imposed in Khartoum State in mid-March 2020. In April 2020 the government launched a social assistance program to provide in cash and in-kind support to households in Khartoum State. Restrictions on movement are expected to make the economic situation worse, with commodity prices soaring across the country. The lockdown was

10 Source: See https://www.worldbank.org/en/country/sudan/overview#1 (Last Updated: Sep 29, 2021) (Accessed 16 October 2021).

11 Source: See https://country.eiu.com/sudan (Accessed on 16 October 2021)

12 Source: See https://www.afdb.org/en/countries/east-africa/sudan/sudan-economic-outlook (Accessed on 16 October 2021).

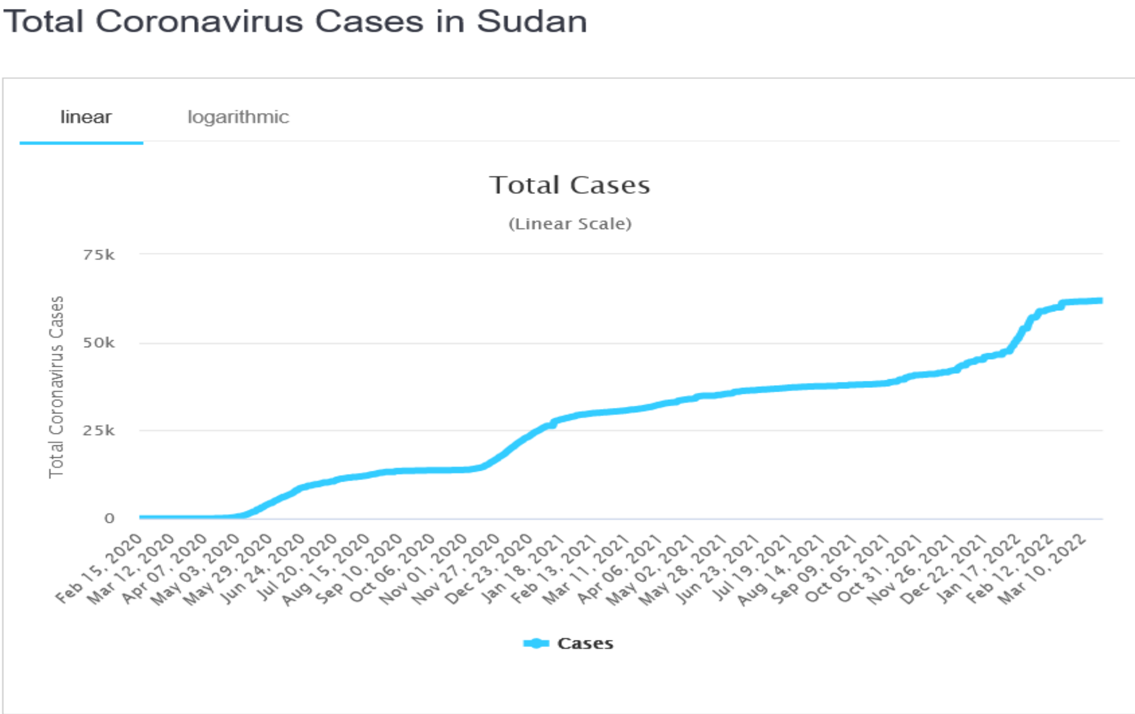
further extended until July 7. Starting July 8, 2020, Sudan began loosening the lockdown measures in and around the capital Khartoum after three months of tight restrictions. The airport began opening on July 12. The rapid spread of COVID-19 in Sudan and the government's containment measures could negatively affect household welfare including loss of employment and income, decreased access to basic commodities and services, and food security. The COVID-19 pandemic will likely worsen living conditions, particularly among the poor and vulnerable Sudanese. Despite the significant efforts made by the government and other key partners, progress has been relatively slow due to the lack of funding and the delayed procurement of required supplies. A revised draft federal budget for 2020 includes a major emergency allocation of resources for COVID-19-related expenditures. Despite the containment measures, the COVID-19 transmission in Sudan evolved quickly. The second wave has led to an increase in the number of cases and deaths. Sudan has limited capacity to control the transmission and contain the COVID-19 pandemic and is among the most affected African countries in terms of absolute numbers of confirmed cases and death ratio. The crisis has brought to the fore systemic weaknesses in Sudan's health system. The COVID-19 pandemic threatens to disrupt the provision of essential health care services due to barriers to the supply and demand for services. COVID-19 will lead to increased prices of basic foods, rising unemployment, slower growth, higher deficits, and falling exports. Restrictions on movement are making the economic situation worse, with commodity prices soaring across the country. According to the International Monetary Fund (IMF) projections, consumer prices are expected to increase by 81.3 per cent in 2020. The World Bank projects gross domestic product (GDP) to decrease 4–10 per cent in 2020 due to the combined impact of the economic crisis exacerbated by the social distancing measures to curb the spread of COVID-19. Slowing growth and COVID-19 policy responses will have a significant negative impact on government revenue. Slowing activity translates into lower levels of tax and other government revenue collection.[13]

The data from the Worldmeters shows the incidence and spread of Corona Virus Pandemic (COVID-19) in Sudan and implies that COVID-19 has rapidly spread in Sudan during the period (2020-2022). For instance, according to data obtained from Worldmeters (2022) Sudan is reporting significant fluctuations and fast increasing trends in the number of cases and number of deaths during the period (March 2020 – March 2022) (see Figure 1.a - Figure 1.d.).[14] Mainly, the Worldmeters (2022) data reports the total cases (Figure 1.a), the daily new cases (Figure 1.b), the total deaths (Figure 1.c), and the daily new deaths (Figure 1.d) of Corona Virus (COVID-19) in Sudan (March 2020- March 2022).

13 See The World Bank and the Central Bureau of Statistics (CBS) (2020) 'Socioeconomic Impact of COVID-19 on Sudanese Households,' the World Bank office in Khartoum, Sudan, December 2020, pp. 1, 5.

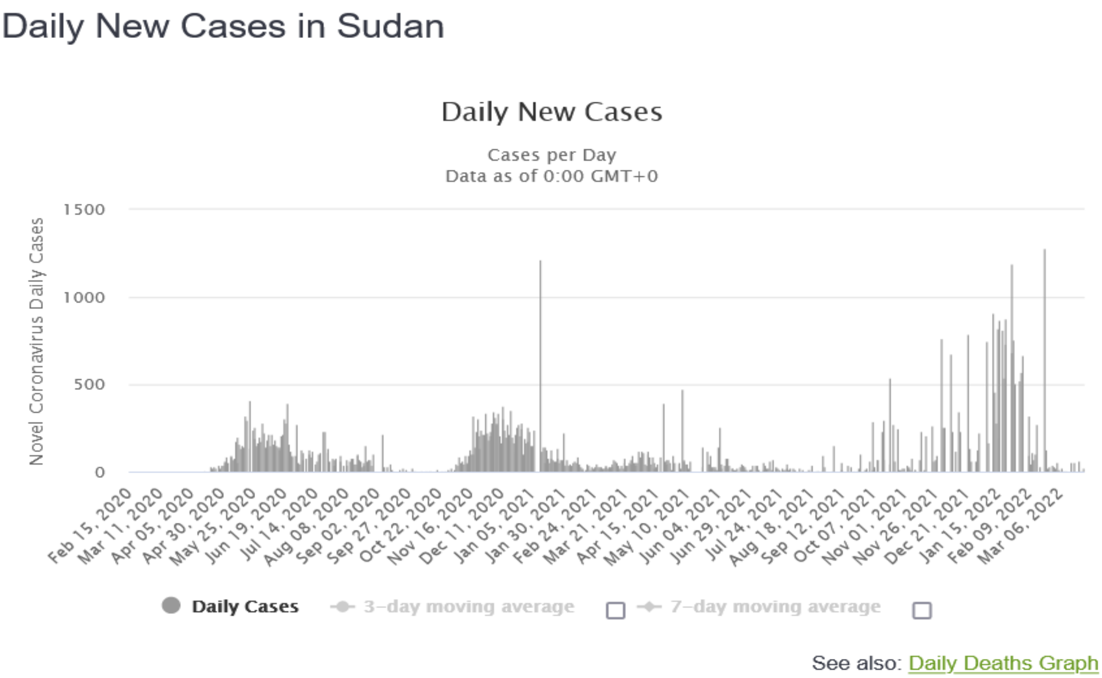
14 See Worldmeters (2022): https://www.worldometers.info/coronavirus/country/sudan/ (Accessed on 26 March 2022)

Figure 1.a. Total Corona Virus (COVID-19) cases in Sudan (March 2020- March 2022)



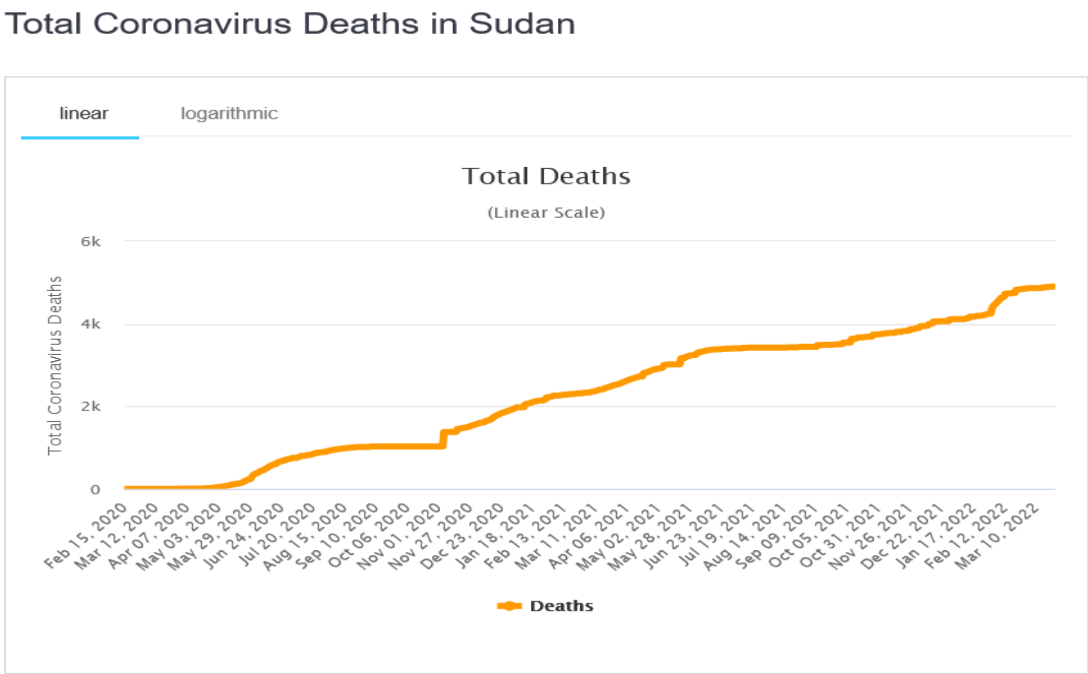
Source: Worldmeters (2022): https://www.worldometers.info/coronavirus/country/sudan/ (Accessed on 26 March 2022)

Figure 1.b. Daily new cases of Corona Virus (COVID-19) in Sudan (March 2020-March 2022)



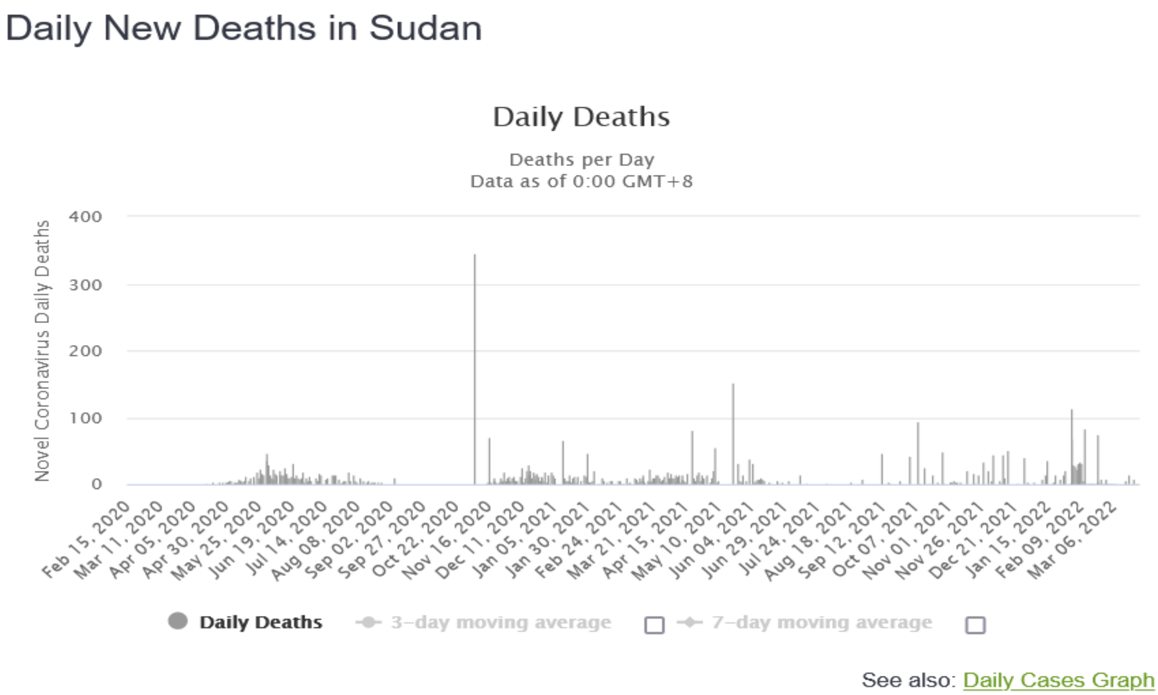
Source: Worldmeters (2022): https://www.worldometers.info/coronavirus/country/sudan/
(Accessed on 26 March 2022)

Figure 1.c. Total of Corona Virus (COVID-19) deaths in Sudan (March 2020- March 2022)



Source: Worldmeters (2022): https://www.worldometers.info/coronavirus/country/sudan/
(Accessed on 26 March 2022)

Figure 1.d. Daily new deaths of Corona Virus (COVID-19) in Sudan (March 2020- March 2022)



Source: Worldmeters (2022): https://www.worldometers.info/coronavirus/country/sudan/
(Accessed on 26 March 2022)

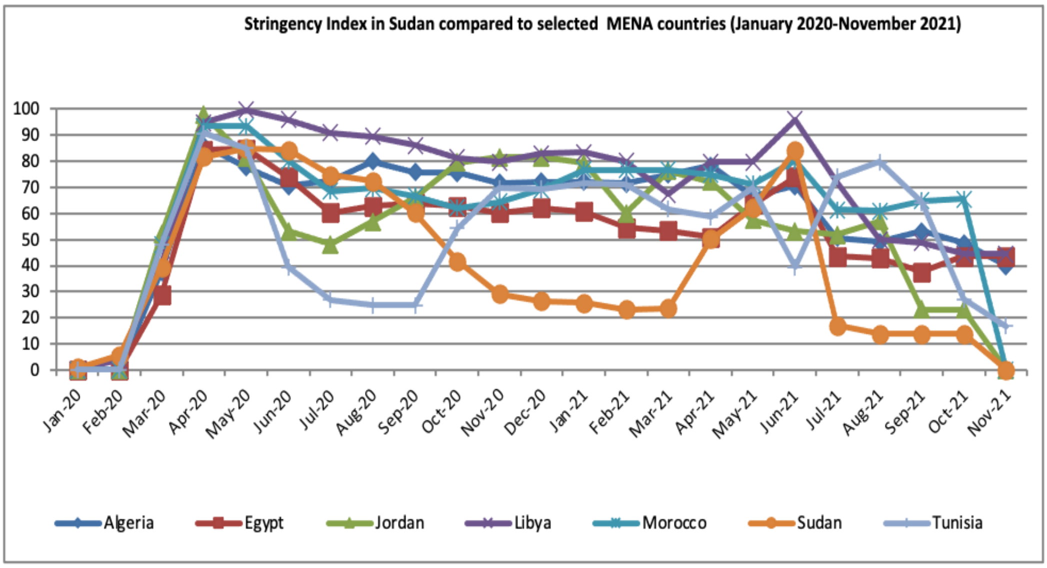
Data from the Sudan Ministry of Health – Sudan Health Observatory (SHO) shows that the regional distribution of the spread of Corona Virus Pandemic (COVID-19) defined by the share in total cases implies the high concentration of the spread and the reported incidence of nearly two thirds of confirmed cases in Khartoum (66.68%), followed by nearly tenth of cases in Gazer (9.49%), River Nile (4.34%), Red Sea (3.87%), Gad riff (3.17%), North (2.45%), Sinner (2.15%), White Nile (1.53%), Kassel (1.52%), North Darfur (1.4%), North Kordofan (1.30%), West Kordofan (0.64%), South Darfur (0.38%), West Darfur (0.23%), South Kordofan (0.16%), Blue Nile (0.14%), East Darfur (0.11%), and Central Darfur (0.02%) respectively.[15]

The Oxford COVID-19 Government Response Stringency index (2021) dataset is part of COVID-19 Pandemic includes four policy indices that shows that the world governments are taking a wide range of measures in response to the COVID-19 outbreak.[16] According to the Oxford COVID-19 Government Response Stringency index (2021) dataset Sudan like many other world governments implemented a wide range of measures in response to the COVID-19 outbreak. The data from the Oxford COVID-19 Government Response Tracker (OxCGRT) track and compare government responses to the coronavirus outbreak worldwide. The score of the Stringency index, the Government Index, the Containment and Health Index, the Economic Support Index in Sudan were lower than some selected MENA countries. The indices score value reflects the intensifying strictness of Sudan government policies that show significant fluctuation and show increasing strictness in the period (April – August 2020), then a decreasing strictness in the period (September 2020- March 2021), then increasing strictness in the period (April – (June 2021) and then a falling strictness in the period (July-November 2021). (See Figure 2)

15 See Sudan Ministry of Health – Sudan Health Observatory (SHO) - COVID-19 Pandemic – Access 13 July 2021 (http://www.sho.gov.sd/corona/, http://www.sho.gov.sd/corona/uploads/7b03e-4.jpg)

16 The Oxford COVID-19 Government Response Stringency index (2021) dataset is part of COVID-19 Pandemic includes four policy indices that shows that the world governments are taking a wide range of measures in response to the COVID-19 outbreak. The Oxford COVID-19 Government Response Tracker (OxCGRT) aims track and compare government responses to the coronavirus outbreak worldwide rigorously and consistently. The OxCGRT systematically collects information on several different common policy responses governments have taken, scores the stringency of such measures, and aggregates these scores into a common Stringency Index (see https://www.bsg.ox.ac.uk/research/research-projects/oxford-covid-19-government-response-tracker) (see also Oxford COVID-19 Government Response Stringency index (https://data.humdata.org/dataset/oxford-covid-19-government-response-tracker (Access 10 November 2021))._ The data includes four policy indices that aggregate the data into a single number from 0-100. This is a measure of how many of the relevant indicators a government has acted upon, and to what degree. The index cannot say whether a government's policy has been implemented effectively. The index includes the overall government response index, the index records how the response of governments has varied over all indicators in the database, becoming stronger or weaker over the course of the outbreak. The containment and health index is the index that combines 'lockdown' restrictions and closures with measures such as testing policy and contact tracing, short term investment in healthcare, as well investments in vaccines. It is calculated using all ordinal containment and closure policy indicators and health system policy indicators. Stringency index, the index records the strictness of 'lockdown style' policies that primarily restrict people's behaviour. It is calculated using all ordinal containment and closure policy indicators, plus an indicator recording public information campaigns. The Economic support index records measures such as income support and debt relief. It is calculated using all ordinal economic policies indicators. Risk of openness index the index is based on the recommendations set out by the World Health Organization (WHO) of the measures that should be put in place before Covid-19 response policies can be safely relaxed. Read more about the details, visualisations, and methodology. Read the dedicated Risk of openness working paper. Note that these indices simply record the number and strictness of government policies, and should not be interpreted as 'scoring' the appropriateness or effectiveness of a country's response. A higher position in an index does not necessarily mean that a country's response is 'better' than others lower on the index.

Figure 2 – Oxford COVID-19 Government Response Stringency index (2021)



Source: Adapted from Oxford COVID-19 Government Response Stringency index (2021) (https://data.humdata.org/dataset/oxford-covid-19-government-response-tracker (Access 10 November 2021).

4. The status of households during the COVID-19 pandemic in Sudan

This Section investigates in detail the Household Survey data to discuss the status of households during the COVID-19 in Sudan. Mainly, this section discusses the labour market status in Sudan during the COVID-19 pandemic period. It explores the structure of the labour market, structure of employment, the status of employment and unemployment and the working conditions. Moreover, it inspects the status in business and working status in business, wages, income and revenue, households' mean of livelihood and source of income. It will also detail what have been employers' provision and contribution to social protection of workers, which forms of government support and social support was provided over the COVID-19 crisis. Finally, it explains what the most needed policies to support business are for getting over the COVID-19 crisis in Sudan.

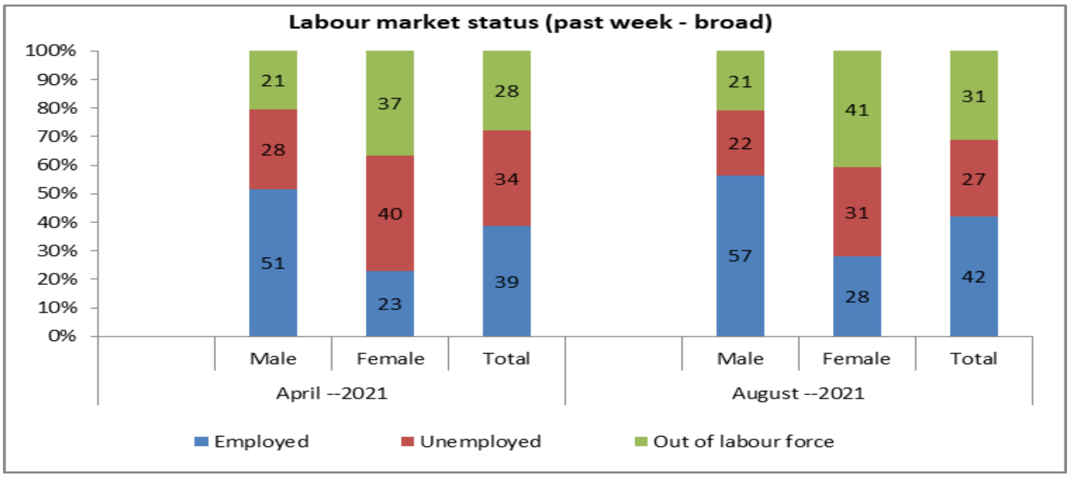
4.1. Labour market status in Sudan during the COVID-19 Pandemic period

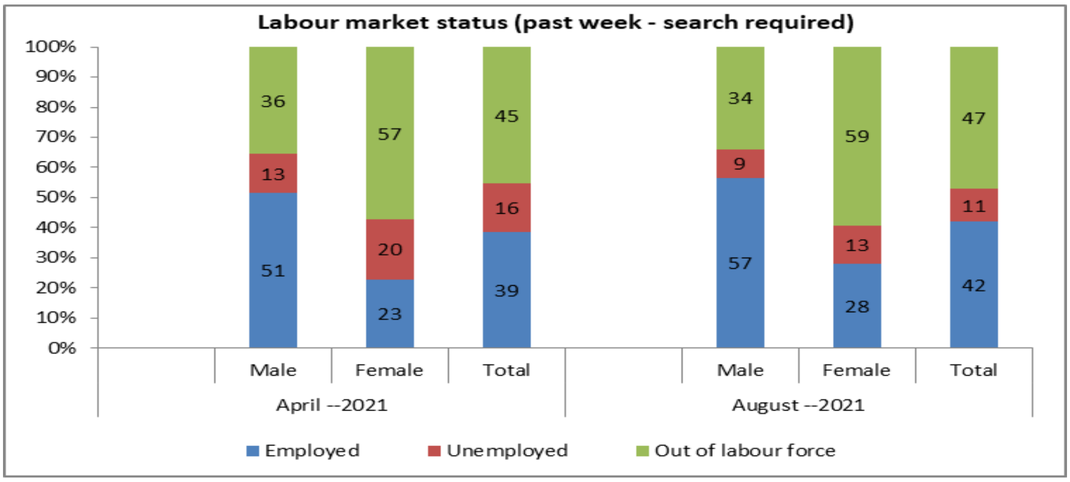
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021), inspecting a broad definition of the labour market status, shows that during the COVID-19 pandemic period the employment rate decreased from 39% in April 2021 to 21% in August 2021.Unemployment rate increased from 28% in April 2021 to 41% in August 2021 and the share of individuals out of the labour force increased from 28% in April 2021 to 31% in August 2021. By contrast, when using the standard definition of the labour market status it shows that during the COVID-19 pandemic period the employment increased from 39% in April 2021 to 42% in August 2021, while unemployment decreased from 16% in April 2021 to 11% in August 2021 and the share of individuals out of the labour force increased from 45% in April 2021 to 47% in August 2021.

The labour market status defined by the labour force participation implies that the participation in the labour force decreased from 72% in April 2021 to 69% in August 2021 (according to the broad definition) and decreased from 55% in April 2021 to 53% in August 2021 (according to the standard definition), but the share of those who are not in the labour force increased from 28% in April 2021 to 31% in August

2021(according to the broad definition) and increased from 45% in April 2021 to 47% in August 2021 (according to the standard definition). Labour market status defined by the (past week - broad) status of employment implies that although the majority of all households are employed (39%), but more than third are unemployed (34%), and nearly third are out of the labour force (28%). Between April 2021 and August 2021 employment increased from 39% to 42% for all, from 51% to 57% for male and from 23% to 28% for female (sees Figure 3). The labour market status defined by the unemployment implies that from April 2021 to August 2021 the unemployment (as a share of those in labour force) decreased from 47% to 39% for all, from 35% to 28% for male, and from 64% to 53% for female (according to the broad definition) and decreased from 29% to 11% for all, from 20% to 14% for male, and from 46% to 31% for female (according to the standard definition) (see Figure 5). The labour market status vary according to gender, for instance, according to the standard definition the participation in the labour force participation between April 2021 and August 2021 for males (64%, 66%) is higher than females (43%, 41%), the participation in the labour force increased for male from 64% to 66% and decreased for female from 43% to 41%. moreover, more than half of females are out of the labour force (57%, 59%) compared to more than third of males (36%, 34%) (See Figure 3), in addition, unemployment for females is higher than males, the majority and nearly third of females are unemployed (31%) (See Figure 3).

Figure 3- Labour market status, labour force participation, employment and unemployment in Sudan during the COVID-19 Pandemic period

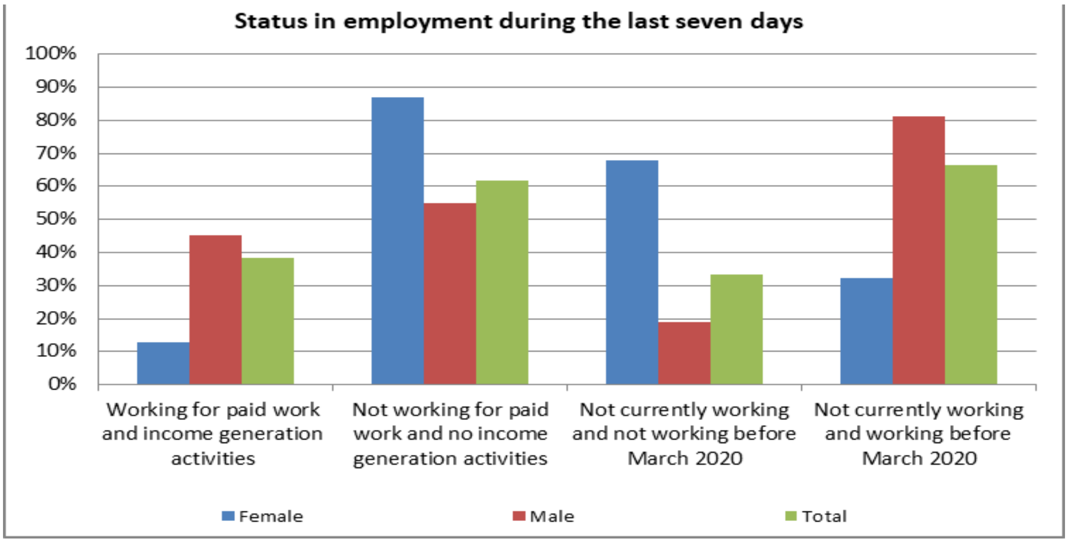


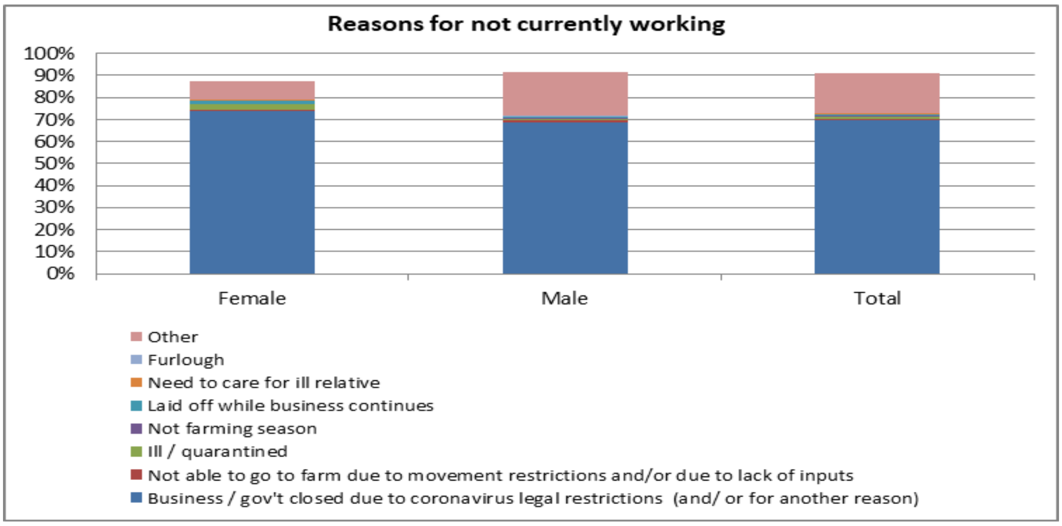


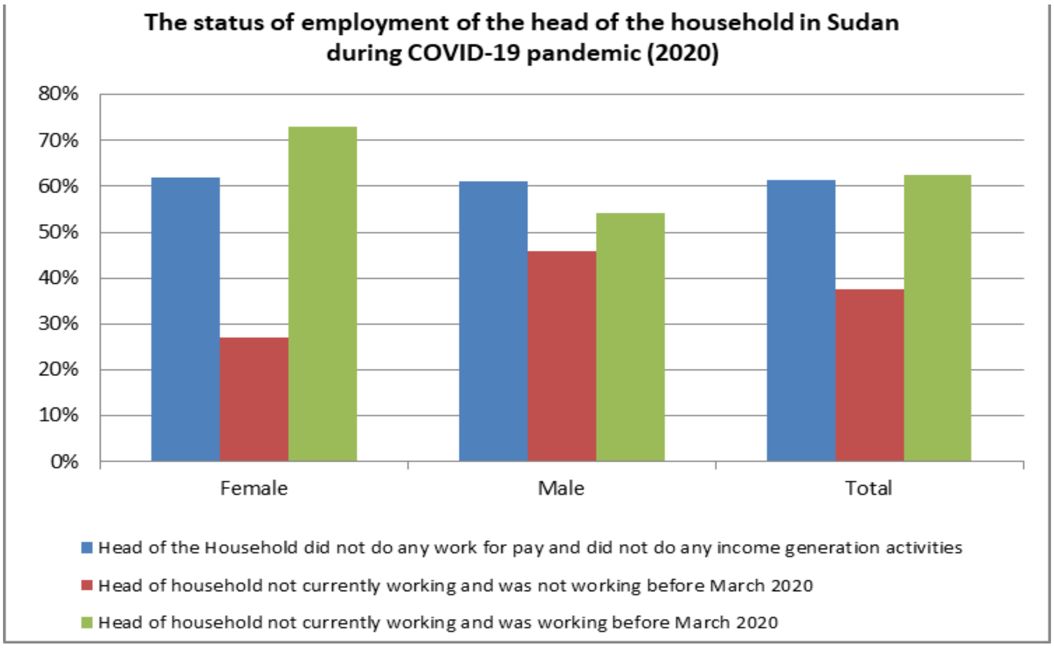
Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

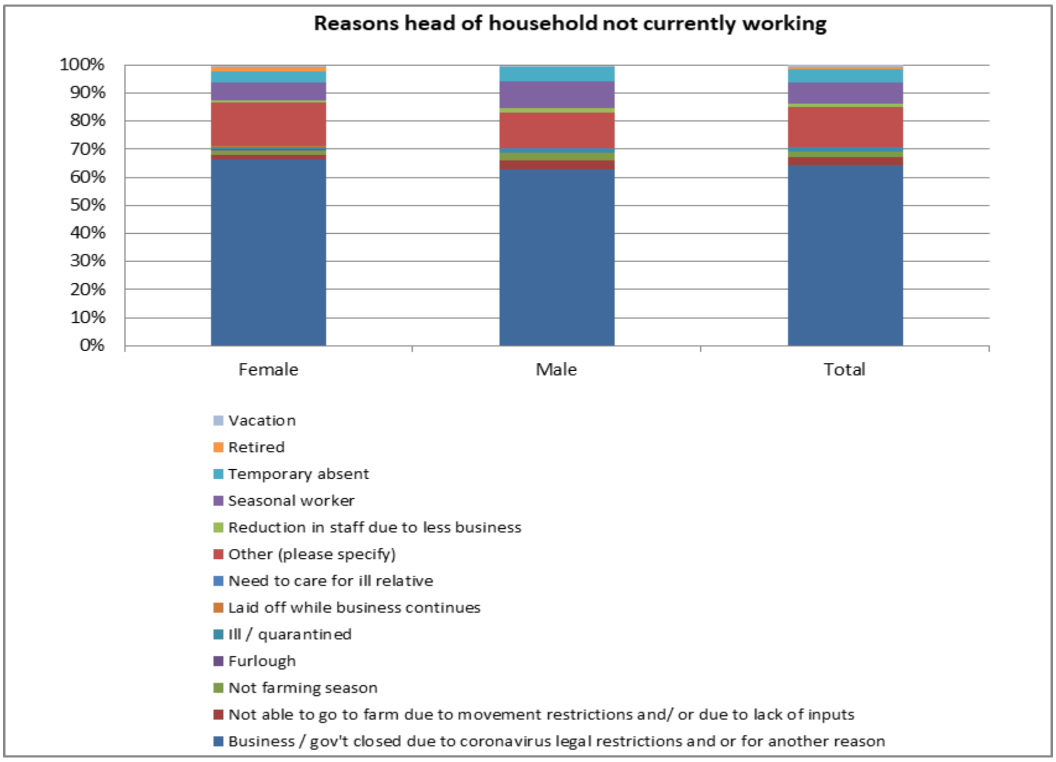
The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) show the status of employment of households during the COVID-19 period (see Figure 6). For instance, even though during the last seven days more than third of households (38%) and head of household (39%) were working for paid job and income generation activities however, the majority and nearly two third of households (62%) and head of household (61%) were not working (see Figure 4). The status of employment varies according to gender, for instance, the status of employment implies that the probability of households were not working for paid work and income generation activities during the last seven days is higher for females (87%) compared to males (55%) and for females head of household (62%) is higher than males head of household (61%), the probability of households were not currently working and not working before March is higher for females (68%) compared to males (19%), and the probability of households were not currently working and working before March is higher for males (81%) compared to females (32%).The main reason the households and the head of household not currently working for the majority and more than two third of households because business / gov't closed due to coronavirus legal restrictions (and/ or for another reason) reported by households (70%) and head of household (65%), respectively. Other reasons are that households not able to go to farm due to movement restrictions and/or due to lack of inputs, ill / quarantined, not farming season, laid off while business continues, need to care for ill relative, furlough, and other, reduction in staff due to less business, retired, seasonal worker, temporarily absent, vacation and other reasons (including curfew, fuel Issues, and low income). (See Figure 4)

Figure 4 - the status of employment during the last seven days in Sudan in 2020









Source: Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020)

4.2. Change in employment, unemployment, wages and hours defined by occupations and initial sector of economic activity

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the majority and nearly half of all households (51%, 48%), nearly half of males (47%, 44%) and more than half of females (56%, 51%) indicate that the main job/activity in the past month is different than February 2020, while nearly half of all households (49%, 52%), more than half of males (53%, 56%), and nearly half of females (44%, 49%) indicate that the main job/activity in the past month is the same as that of February 2020 as indicated by the respondents to the first wave (April 2021) and second wave (August 2021) respectively. (See Figure 5). This implies transitions in the main job/economic activity from the pre Covid-19 pandemic period and during the COVID-19 pandemic period. For instance, the analysis using the first wave ERF COVID MENA Monitor Sudan Survey data (2021) show the change in employment, unemployment, wages and hours defined by occupations and initial sector of economic activity. Regarding employment between April 2021 and August 2021, the employment rate according to initial sector of economic activity decreased for some sectors of economic activity including agriculture, fishing or mining, and health sector, while the employment rate improved for other sectors of economic activity including the manufacturing, construction or utilities, retail or wholesale, transportation and storage, accommodation and food services, information and communication, financial activities or real estate, education and other services. The employment rate according to occupations decreased for manager/professional occupation, while the employment rate improved for other occupations including the technicians/associate professionals, clerks/service workers, and blue collar, skilled agricultural, production and transport. (See Figures 6-7)[17]

Concerning the unemployment rate, between April 2021 and August 2021 the unemployment rate according to initial sector of economic activity (according to the standard definition) remained the same for the agriculture, fishing or mining, but decreased for some sectors of economic activities including construction or utilities, retail or wholesale, information and communication, financial activities or real estate, education and other services, but increased for other sectors of economic activities including manufacturing, transportation and storage, accommodation and food services, and health sector. The unemployment rate according to initial sector of economic activity (according to the broad definition) decreased for construction or utilities, retail or wholesale, transportation and storage, information and communication, financial activities or real estate, education and other services, but increased for other sectors of economic activity including the agriculture, fishing or mining, manufacturing, accommodation and food services, and health sector. The unemployment rate according to occupations (according to the standard definition) increased for manager/professional occupation, but decreased for other occupations including the technicians/associate professionals, clerks/service workers, and blue collar, skilled agricultural, production and transport. While, the unemployment rate (according to the broad definition) decreased for all occupations including the manager/professional, technicians/associate professionals, clerks/service workers, and blue-collar, skilled agricultural, production and transport. (See Figures 6-7)

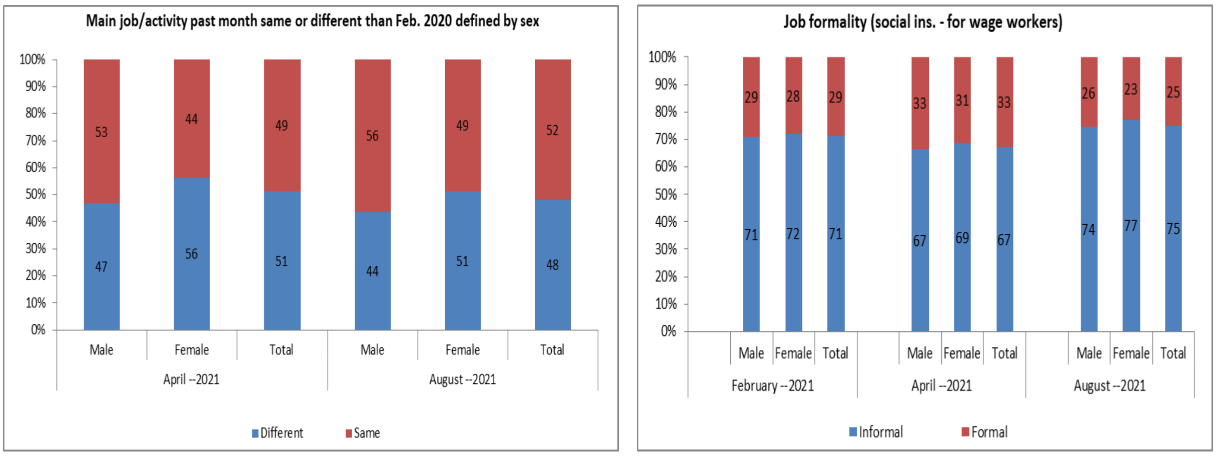
Regarding wages, between April 2021 and August, the personal net monthly wages (SDG 15,000 or more net monthly wage in the past month in 2021) according to initial sectors of economic activity increased for some sectors including accommodation and food services, information and communication, financial activities or real estate, education, and health, while, the personal net monthly wage (SDG 15,000 or more net monthly wage in the past month in 2021) decreased for other sectors including agriculture, fishing or mining, manufacturing, construction or utilities, retail or wholesale, transportation

17 We are aware that it would be interesting to add analysis according to classification of employment in formal jobs and informal jobs. However, the lack of adequate data on formal and informal jobs and income and employment conditions constrained our paper to consider analysis of income and work conditions according to formal jobs/informal jobs. We hope to consider this interesting topic in our future research when adequate data on classification according to formal jobs and informal jobs are available.

and storage, and other services. The personal net monthly wage (SDG 15,000 or more net monthly wage in the past month in 2021) according to occupations decreased for all occupations. While, the personal net monthly wage (SDG 10,000-less than SDG 15,000 net monthly wage in the past month in 2021) increased for blue collar, skilled agricultural, production and transport, but decreased for all other occupations including manager/professional, technicians/associate professionals, and clerks/service workers. (See Figures 6-7)

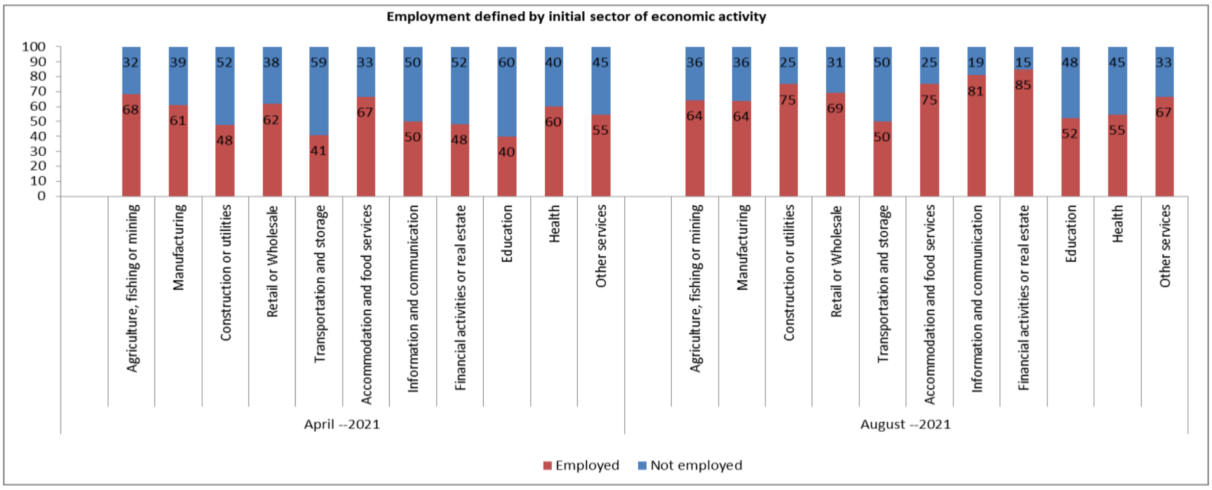
Concerning hours, between April 2021and August 2021 the number of working hours (90 or more working hours in the past seven days) according to initial sector of economic activity increased for some sectors including agriculture, fishing or mining, manufacturing, construction or utilities, retail or wholesale, information and communication, financial activities or real estate, health, and other services, while, the number of working hours (less than 30 working hours in the past seven days) decreased for some sectors including transportation and storage, accommodation and food services, and education sectors. The number of working hours (less than 30 working hours in the past seven days) according to occupations increased for all occupations including manager/professional, technicians/associate professionals, clerks/service workers, and blue-collar, skilled agricultural, production and transport. (See Figures 6-7)

Figure 5- Change in main job/activity in the past month and job formality (socail insurance for wage workers)

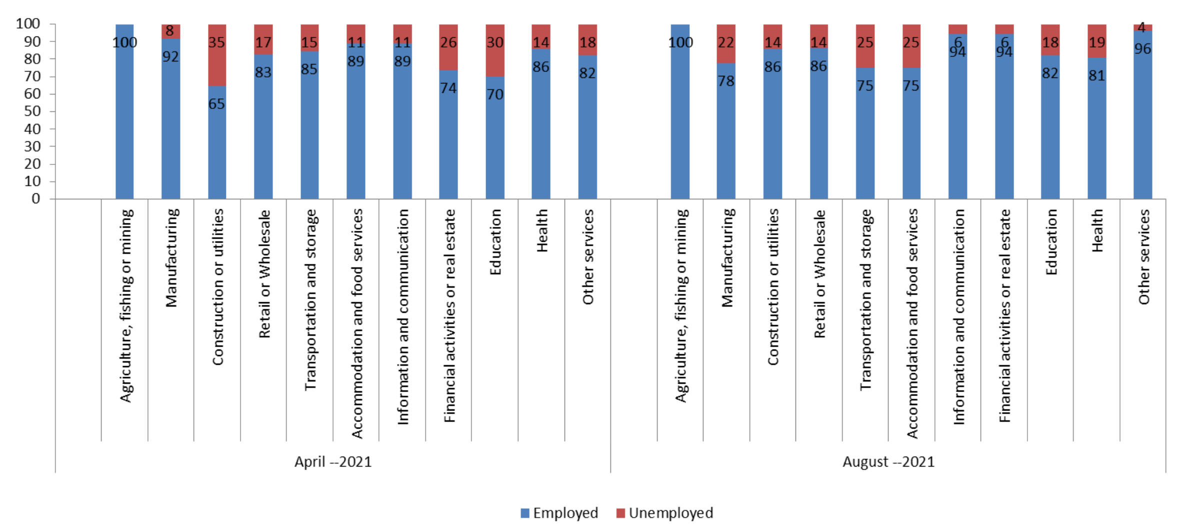


Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

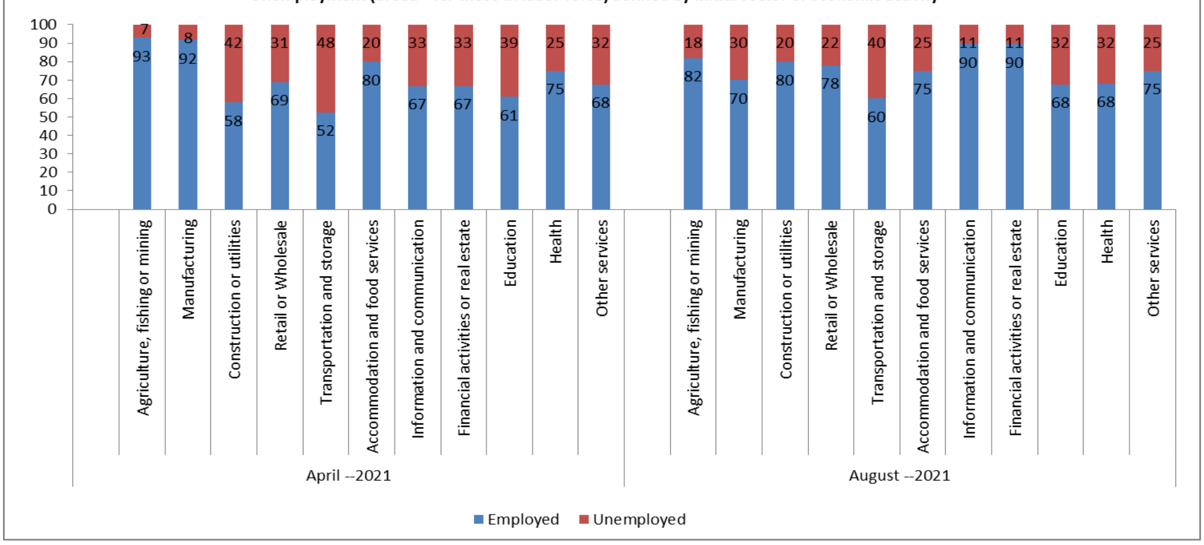
Figure 6– Change in employment, unemployment, wages and hours defined by initial sector of economic activity classification (April-August 2021)



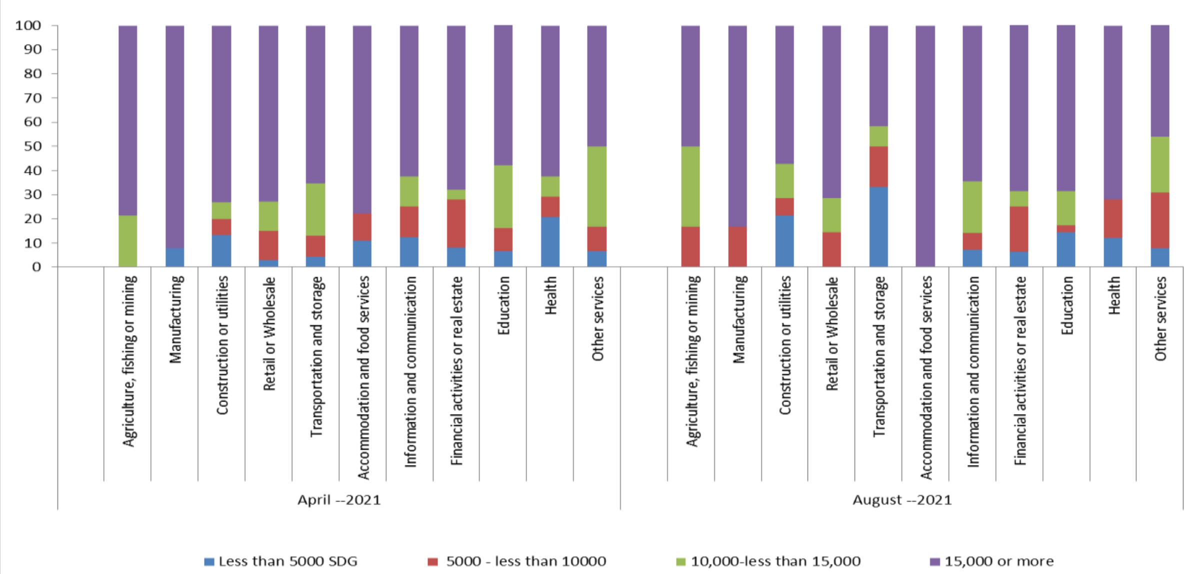
Unemployment (search required - for those in labor force) defined by initial sector of economic activity

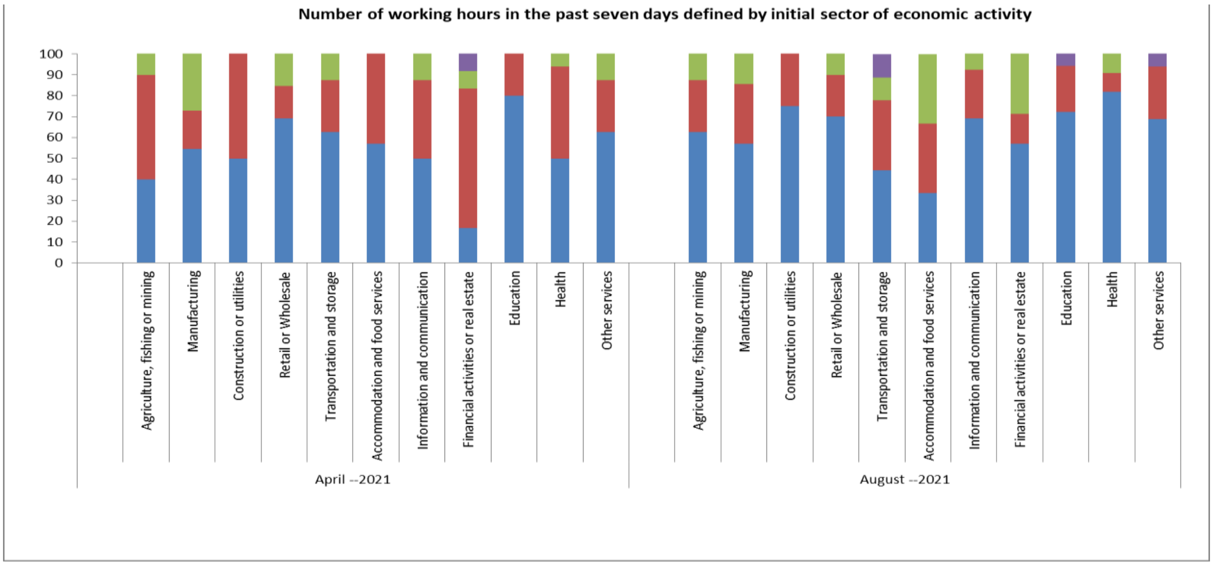


Unemployment (broad - for those in labor force) defined by initial sector of economic activity



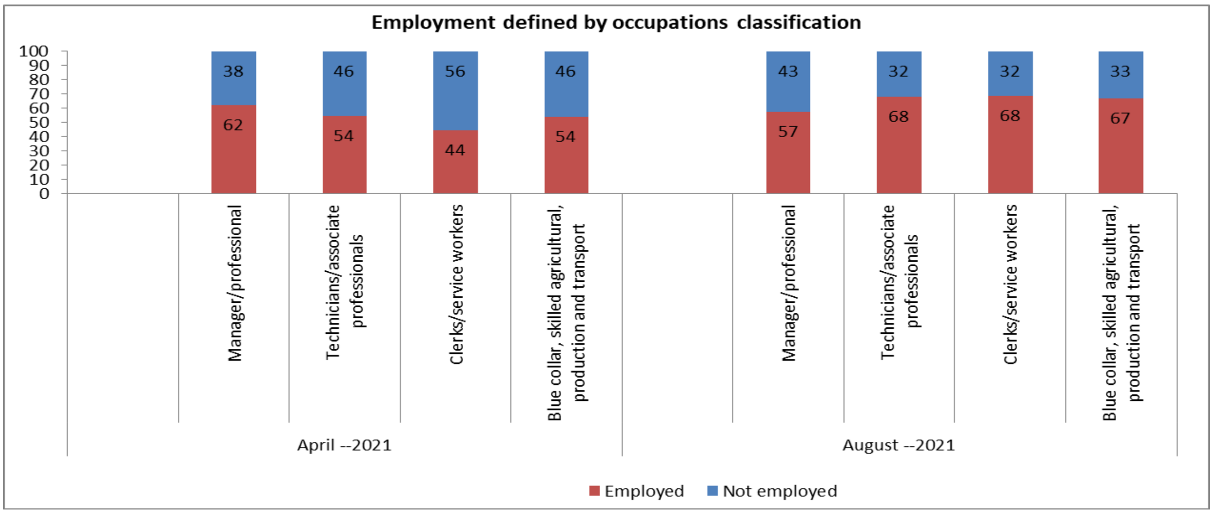
Past month personal net monthly wage defined by initial sector of economic activity

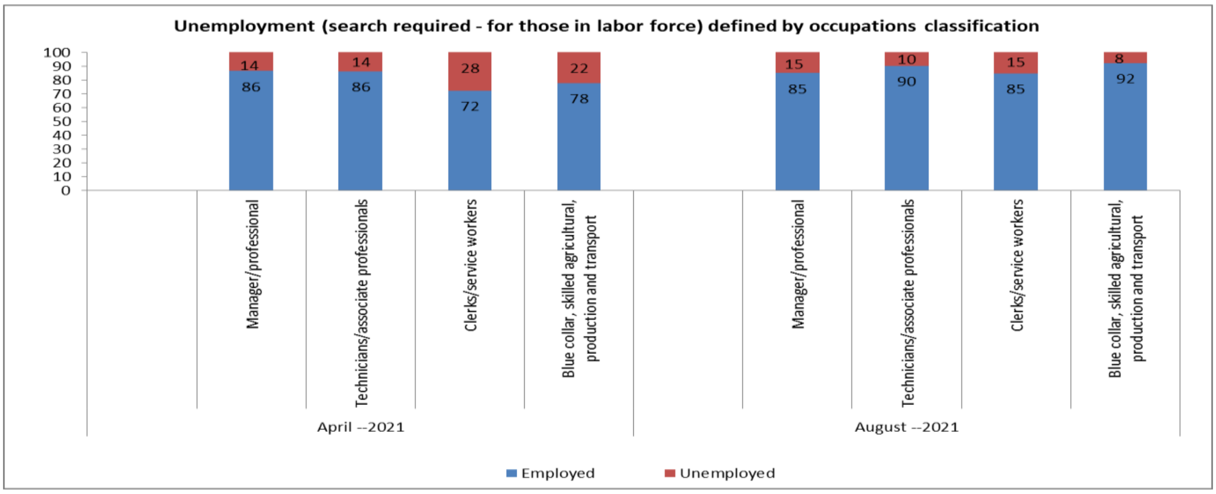


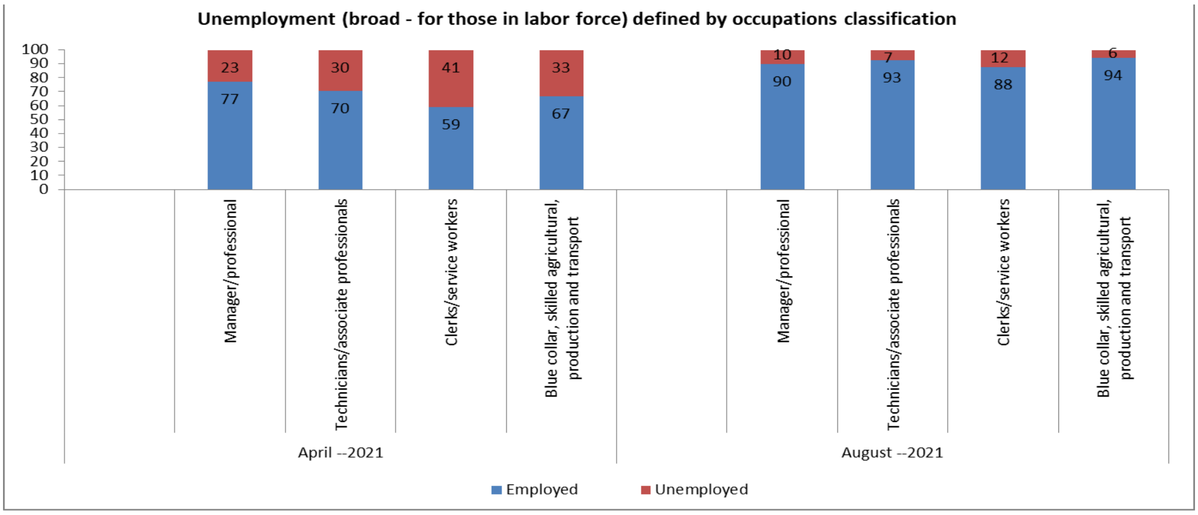


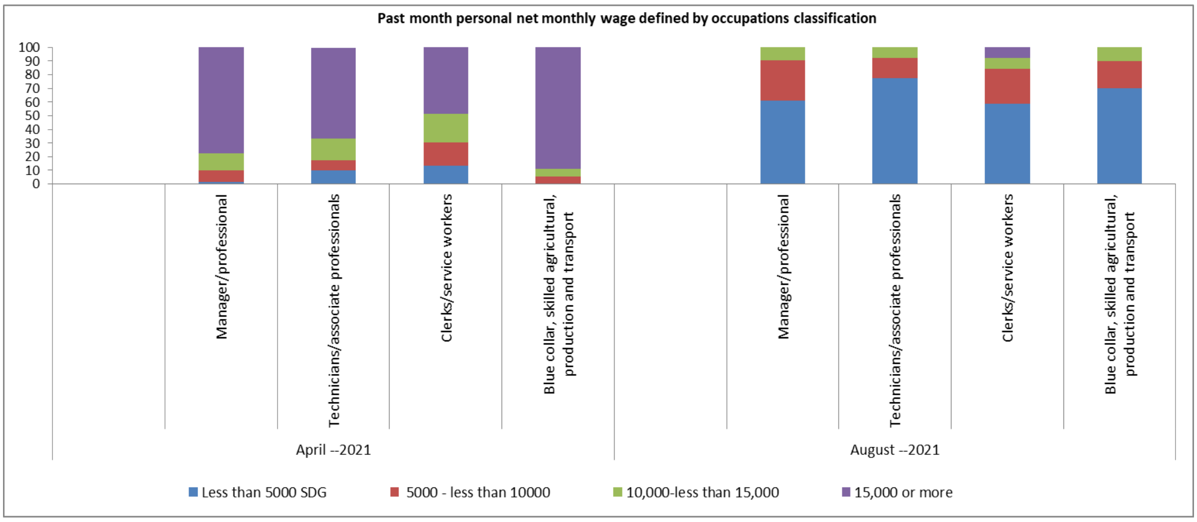
Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

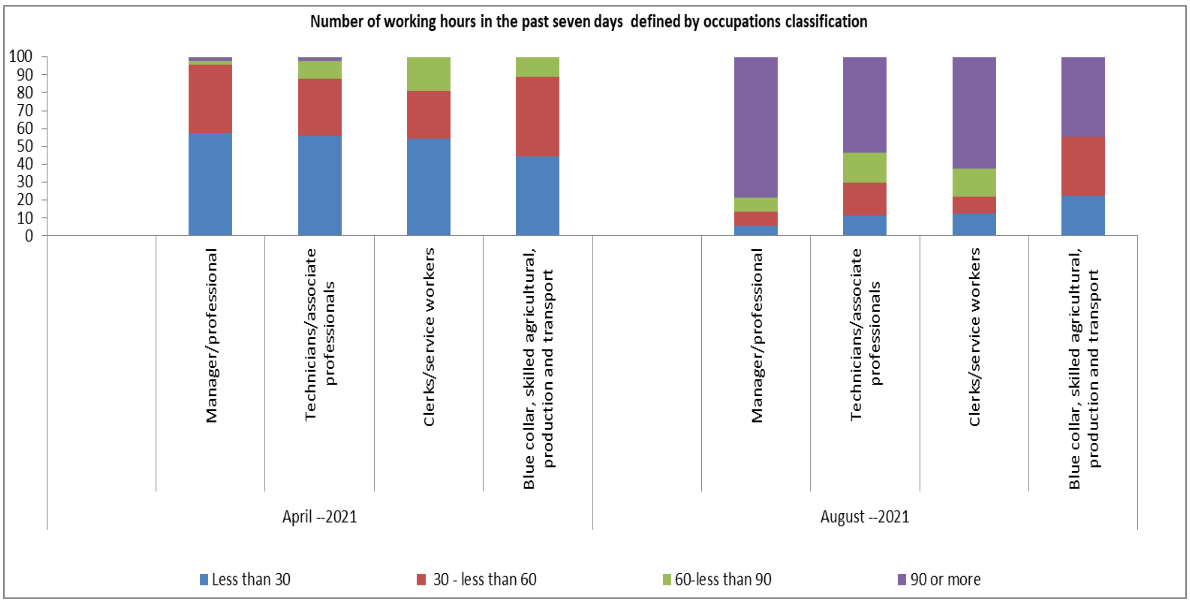
Figure 7 – Change in employment, unemployment, wages and hours defined by occupa classification (April-August 2021)











Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

In addition, the distribution of employment by sector of economic activity (April 2021) that implies that the majority of all households are working on Retail or Wholesale (16%), followed by other services (14%), Education (12%), Health (10%), Financial activities or real estate (10%), Transportation and storage (9%), Construction or utilities (8%), Agriculture, fishing or mining (6%), Manufacturing (6%), Information and communication (5%), and Accommodation and food services (4%) respectively. In addition, the analysis using the second wave ERF COVID MENA Monitor Sudan Survey data (2021) show the distribution of employment by sector of economic activity (August 2021) implies that the majority of all households are working on Education (20%), followed by other services (19%), Retail or Wholesale (13%), Transportation and storage (13%), Construction or utilities (8%), Health (6%), Financial activities or real estate (6%), Agriculture, fishing or mining (6%), Manufacturing (5%), Information and communication (4%), and Accommodation and food services (1%) respectively. In addition, the analysis using the World Bank and Sudan households COVID-19 Survey data (2020) show the sector of the work left (the main activity of the business or organization in which households were working in their main job before March 2020 (i.e. before the COVID-19 pandemic period). The majority and nearly a quarter of households left the work at the buying and selling goods sector repair of goods, hotels & restaurants (23%), while nearly fifth of household left the work at the agriculture, hunting, fishing (19%), personal services, education, health, culture, sport, domestic work, and other (18%). Whereas, few and less than tenth of household left the work at construction (8%), professional activities: finance, legal, analysis, computer, real estate (4%), transport, driving, post, travel agencies (4%), mining, manufacturing (3%), public administration (2%), electricity, gas, water supply (1%), and other.

The main reasons for changing jobs for the majority and nearly half of households and the household head because business/ gov't closed due to coronavirus legal restrictions (and/or for another reason) for households (44%) and household head (48%), followed by not able to go to farm due to movement restrictions and/ or due to lack of inputs for household (3%) and household head (5%), not farming season for household (1%) and household head (5%). laid off while business continues (1%), other for household (16%) and household head (19%), seasonal worker for household (23%) and household head (19%), temporarily absent (7%), vacation for household (3%) and household head (5%), and reduction in staff due to less business (1%) respectively. The main reasons for changing job varies according to gender, for instance, for males the main reasons for changing jobs for the majority and nearly half of males because business/ gov't closed due to coronavirus legal restrictions (and/or for another reason) (41%), followed by not able to go to farm due to movement restrictions and/ or due to lack of inputs (3%), not farming season (3%), laid off while business continues (1%), other (17%%), seasonal worker (25%), temporarily absent (7%), vacation (2%), and reduction in staff due to less business (2%) respectively. while, for females the main reasons for changing jobs for the majority and nearly three quarter of females because business/ gov't closed due to coronavirus legal restrictions (and/or for another reason) (70%), followed by seasonal worker (10%), temporarily absent (10%), and vacation (10%) respectively. The Change in jobs and reasons for changing jobs during the COVID-19 pandemic period for household and household head vary across regions/states in Sudan.

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the structure of labour market according to job formality defined according to social insurance for wage workers in February 2020 that implies that the majority and more than two thirds of all households (67%, 75%), males (67%, 74%) and females (69%, 77%) are working in informal jobs, compared to less than third of all households (33, 25%%), males (33%, 26%), and females (31%, 23%) working in formal job, working in informal jobs for females are higher than males, between April 2021 and August 2021 the work in the increase in informal job increased for female is higher than male, as indicated by the respondents to the first wave (April 2021) and second wave (August 2021) respectively. (See Figure 8)

4.3. The status of employment and unemployment

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) indicates that although more than third of all households (34%) indicates that they are doing work in the month of February 2020, however, the majority and nearly two thirds of all households (66%) indicate that they are not doing any work. More than half of males (53%) compared to tenth of females (10%) indicates that they are doing work, however, nearly half of males (47%) and the majority and more than half of females (90%) indicate that they are not doing any work. The probability of doing work in the month of February 2020 for males is more than five times higher than females, the probability of not doing any work for females is nearly twice times higher than males .

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the main reasons for not working in February 2020 for the majority and nearly third of all households because of unemployment (31%), followed by studying full time (29%), taking care of household, children or elderly relatives (18%), and other (22%) respectively. The main reasons for the majority and more than third of males because of unemployment (38%), followed by studying full time (32%) and other (30%) respectively. The main reasons for the majority and less than third of females because of taking care of household, children or elderly relatives (29%), followed by studying full time (28%), unemployment (27%) and other (17%) respectively.

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that although more than third (36%) of all households indicates that they did anything to find a paid job/start business in the month of February 2020, however, the majority and nearly two thirds of all households (64%) indicate that they did not do anything to find a paid job/start business in the month of February 2020. More than third of males (39%) compared to less than third of females (33%) indicates that they did anything to find a paid job/start business in the month of February 2020, however, nearly two thirds of males (61%) and the majority and more than two thirds of females (67%) indicate that they did not do anything to find a paid job/start business in the month of February 2020. The possibility of doing anything to find a paid job/start business for males is higher than females. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the employment status defined by employment stability defined by having regular (permanent or temporary) employment in the month of February 2020 was reported by the majority and more than two thirds of all households (72, 77%%), males (71%, 77%) and females (75%, 77%) in April 2021 and August 2021 respectively. While, the lack of employment stability defined by having irregular (causal, seasonal, or intermittent) employment in the month of February 2020 was reported by less than third of all households (28%, 33%), males (29%, 33%) and females (25%, 33%) in April 2021 and August 2021 respectively. The employment stability improved between April 2021 and August 2021, the possibility of employment stability and having regular (permanent or temporary) employment for females is higher than males in April 2021. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of doing any kind of business to generate income last week that implies that less than a quarter of all households (11%), males (15%) and females (8%) did any kind of business to generate income last week. While the majority and more than half of all households (89%), males (85%) and females (92%) did not do any kind of business to generate income last week. The possibility of doing any kind of business to generate income last week for males is more than twice higher than females. In addition, only less than tenth of all households (3%), males (4%), and females (2%) helped in a family business or farm last week. The possibility of helping in a family business or farm last week for males is nearly twice higher than females. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of being able to do more work from home since February 2020 that implies that few and less than third of all households (20%), males (18%), and females (26%) have been able to do more work from home since February 2020. While the majority and more than half of all households (80%), males (82%), and females (74%) have not been able to do more work from home since February 2020. The possibility of being able to do more work from home since February 2020 for females is higher than males. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of being attached to a job in the past seven days but were temporarily absent from work that implies that few and less than a quarter of all households (9%), females (4%) and males (15%) have been attached to a job in the past seven days but were temporarily absent from work. While the majority and more than half of all households (91%), males (85%), and females (96%) have not been attached to a job in the past seven days. The possibility of being attached to a job in the past seven days but were temporarily absent from work for males is nearly four times higher than females. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of being wanting, willing and available to work in the past seven days that implies that the majority and more than half of all households (55%), males (58%), and females (52%) indicates that they are wanting, willing and available to work in the past seven days. While less than half of all households (45%), males (42%), and females (48%) indicate that they are not wanting, willing and available to work in the past seven days. The possibility of wanting, willing and of being available to work in the past seven days for male is higher than female. (See Figure 8)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of being wanting to work at present that implies that the majority and more than half of all households (58%), males (60%), and females (57%) indicate that they are wanting to work at present. While less than half of all household (42%), males (40%), and females (43%) indicate that they do not want to work at present. The possibility of wanting to work at present for males is higher than females. (See Figure 8)

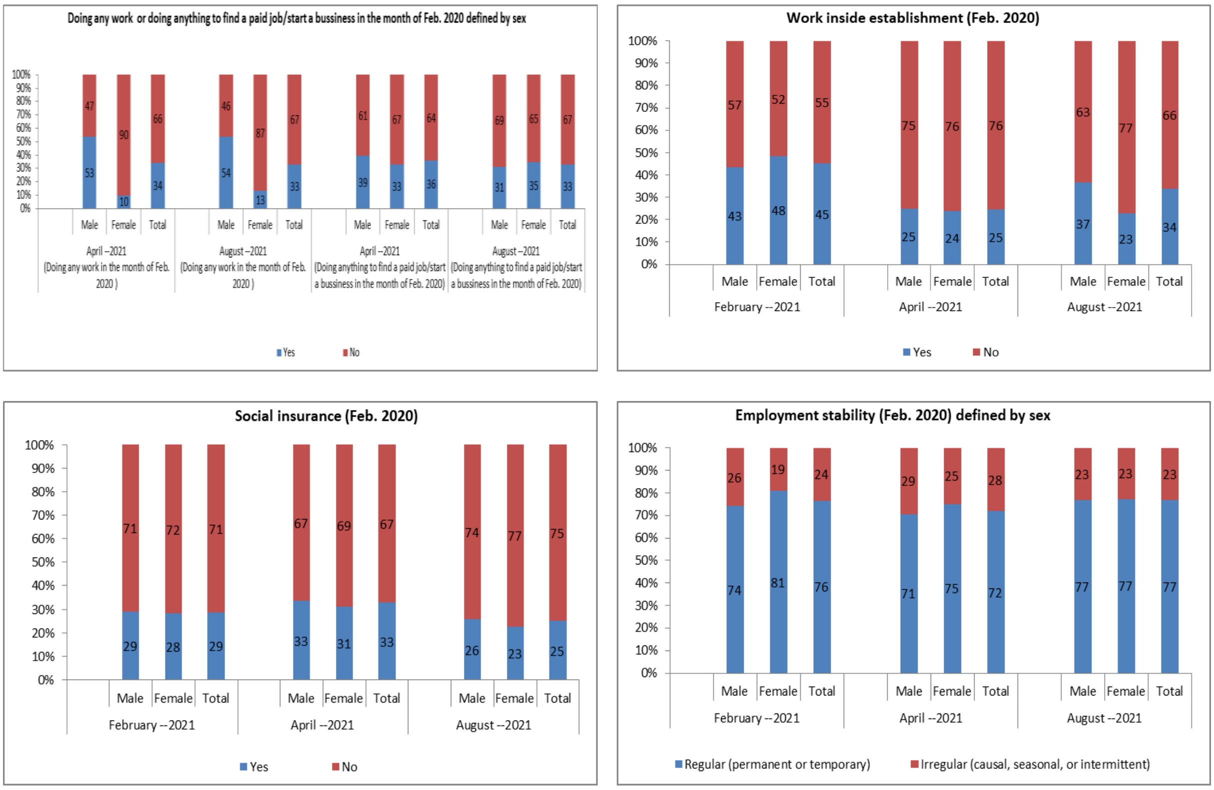
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of being able to start working in the next two weeks if an opportunity became available that implies that the majority and more than half of all households (94%), males (96%), and females (92%) indicate that they could start working in the next two weeks if an opportunity became available. While less than tenth of all households (6%), males (4%), and females (8%) did not indicate that they could start working in the next two weeks if an opportunity became available. The possibility of being able to start working in the next two weeks if an opportunity became available for males is higher than females. (See Figure 8)

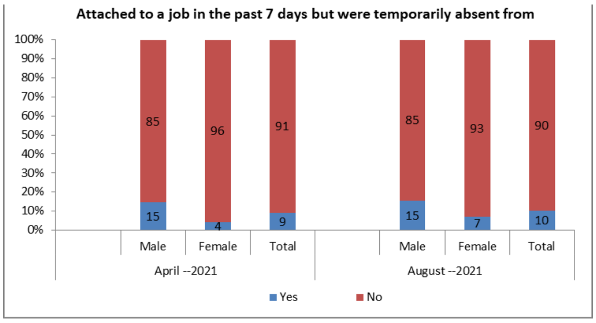
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of employment defined by the possibility of actively searched for work in the past four weeks that implies that the majority and less than half of all households (48%), males (46%), and females (49%) indicate that they are actively searched for work in the past four weeks. While more than half of all households (52%), males (54%), and females (51%) indicate that they did not actively searched for work in the past four weeks. The possibility of actively searched for work in the past four weeks for females is higher than males. (See Figure 8)

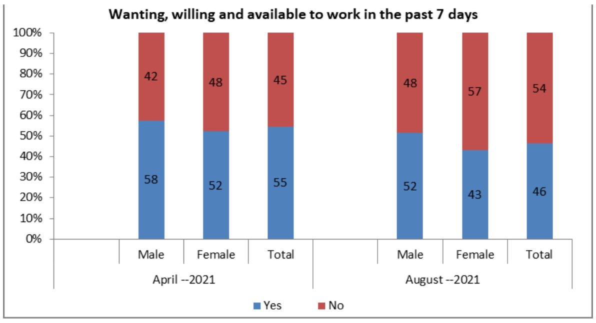
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the main reasons for did not work in the past seven days for the majority and more than a quarter of all households because of being studying full time (27%), followed by housewife (24%), feeling normal with their job (22%), unemployed, and looking for work (16%), leave for family care responsibilities (3%), temporary job ended (2%), retired or had income (2%), leave for own illness, injury, quarantine, to avoid getting sick (2%), had to stop or close personal or family business (0.88%), laid off or fired from paid job (0.27%), and put on leave, furlough, told to wait until called back (0.07%) respectively. The main reasons for the majority and more than third of males because of feeling normal with their job (44%), followed by studying full time (24%), unemployed, and looking for work (18%), retired or had income (4%), temporary job ended (3%), leave for family care responsibilities (3%), leave for own illness, injury, quarantine, to avoid getting sick (1%), had to stop or close personal or family business (1%), laid off or fired from paid job (0.47%), put on leave, furlough, told to wait until called back (0.16%) and the status of being a housewife (0.16%) respectively, The main reasons for the majority and more than third of females because of being a housewife (41%), followed by studying full time (30%), unemployed, and looking for work (15%), feeling normal with their job (6%), leave for family care responsibilities (3%), to avoid getting sick (2%), temporary job ended (1%), retired or had income (1%), leave for own illness, injury, quarantine, had to stop or close personal or family business (0.48%), and laid off or fired from paid job (0.12%) respectively, (see Figure 8)

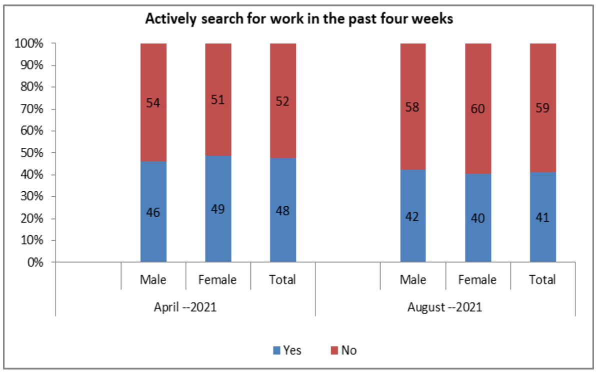
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the reasons for did not actively search for work in the past four weeks for the majority and more than a quarter of all households because of the believe there are no jobs at all (28%), followed by family responsibilities (23%), no suitable job (21%), because of studying (21%), unable to search due to COVID-19 (3%), and lack of personal connections (wasta) (1%) respectively. The reasons for did not actively search for work in the past four weeks for the majority and more than third of males because of the believe there are no jobs at all (38%), followed by no suitable job (31%), because of studying (14%), family responsibilities (11%), unable to search due to COVID-19 (2%), and lack of personal connections (wasta) (1%), respectively. The reasons for did not actively search for work in the past four weeks for the majority and nearly third of females because of family responsibilities (33%), followed by because of studying (26%), because of the believe there are no jobs at all (20%), no suitable job (14%), unable to search due to COVID-19 (4%), and lack of personal connections (wasta) (1%) respectively. The possibility of did not actively search for work in the past four weeks due to COVID-19 for females is twice higher than males. (See Figure 8)

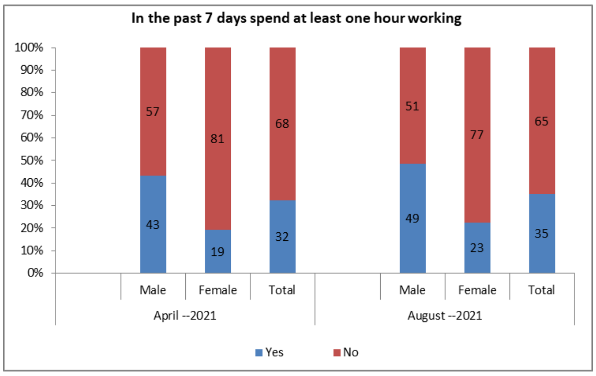
Figure 8– The status of employment and unemployment during the COVID-19 pandemic period in Sudan

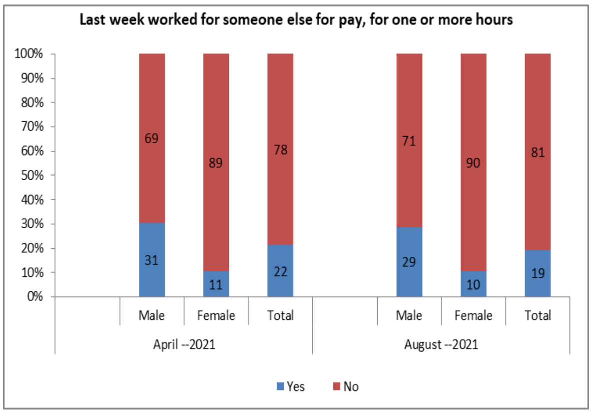


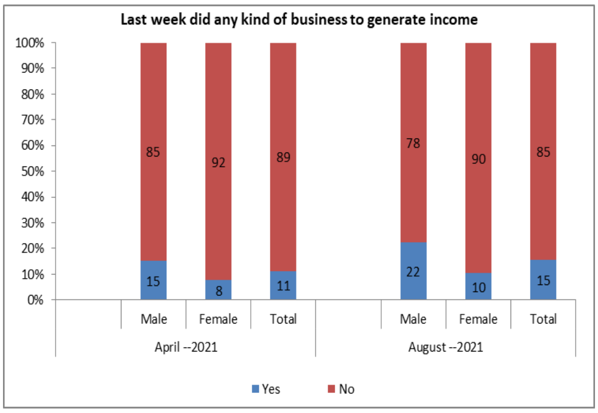

Attached to a job in the past 7 days but were temporarily absent from
85 96 91 85 93 90
15 4 9 15 7 10
Male Female Total Male Female Total
April --2021
August --2021
Yes No

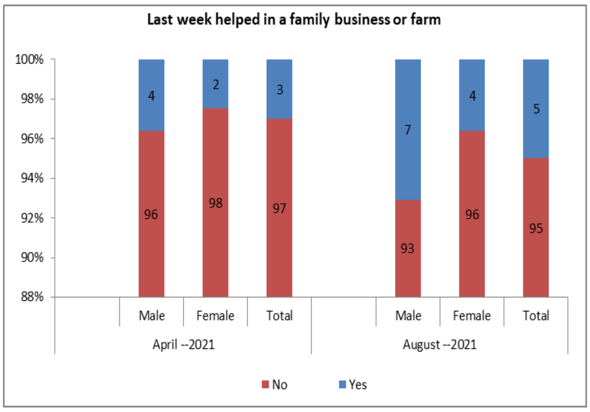

Wanting, willing and available to work in the past 7 days
42 48 45 48 57 54
58 52 55 52 43 46
Male Female Total Male Female Total
April --2021
August --2021
Yes No

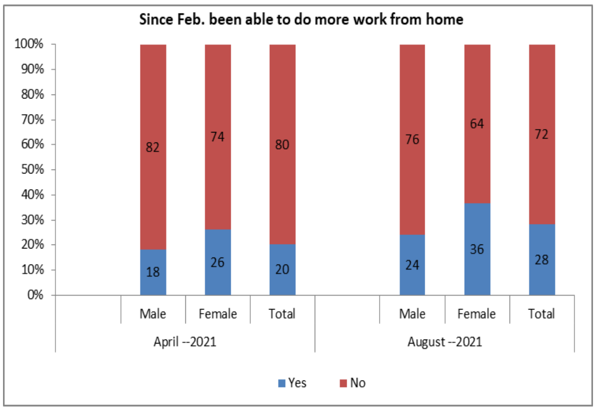

Actively search for work in the past four weeks
54 51 52 58 60 59
46 49 48 42 40 41
Male Female Total Male Female Total
April --2021
August --2021
Yes No

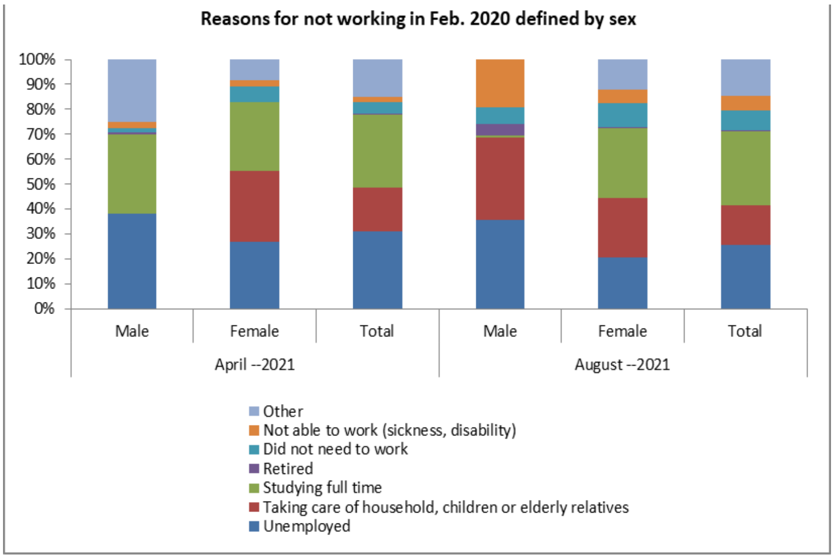

In the past 7 days spend at least one hour working
57 81 68 51 77 65
43 19 32 49 23 35
Male Female Total Male Female Total
April --2021
August --2021
Yes No

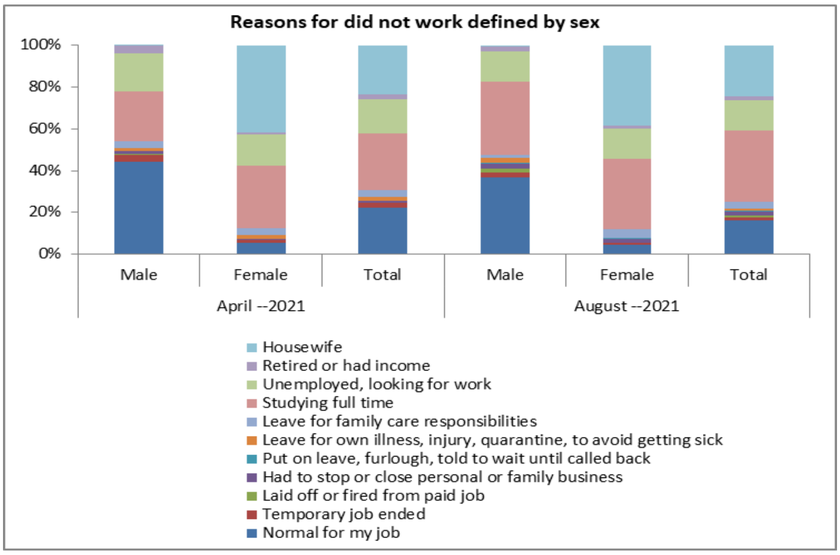

Last week worked for someone else for pay, for one or more hours
69 89 78 71 90 81
31 11 22 29 10 19
Male Female Total Male Female Total
April --2021
August --2021
Yes No

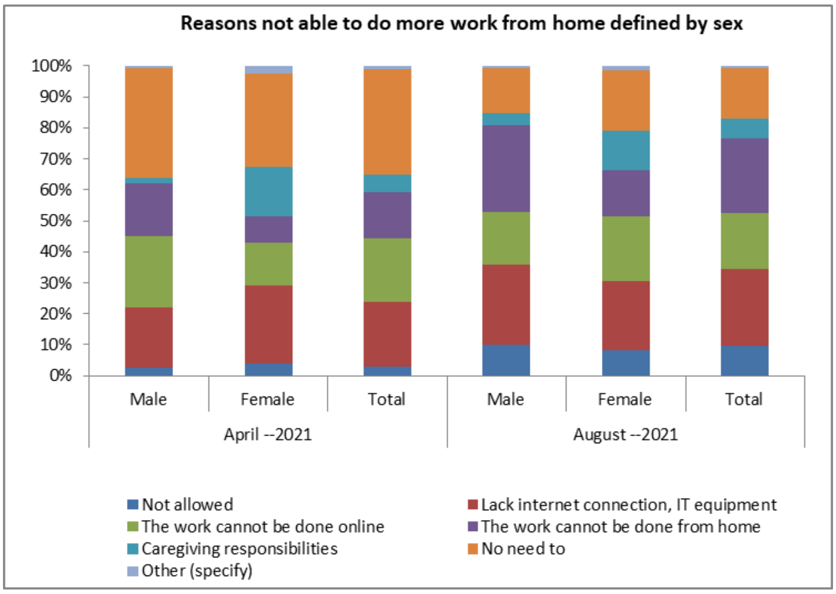

Last week did any kind of business to generate income
85 92 89 78 90 85
15 8 11 22 10 15
Male Female Total Male Female Total
April --2021
August --2021
Yes No

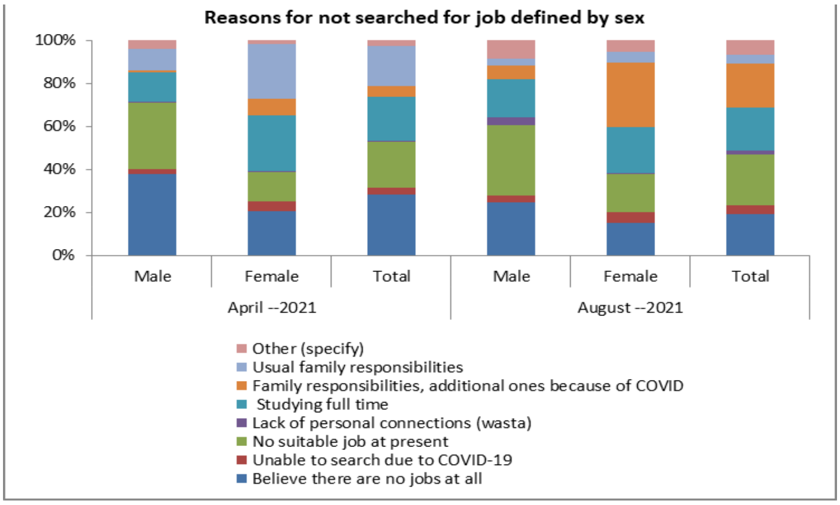

Last week helped in a family business or farm
4 2 3 7 4 5
96 98 97 93 96 95
Male Female Total Male Female Total
April --2021
August --2021
No Yes


Since Feb. been able to do more work from home
82 74 80 76 64 72
18 26 20 24 36 28
Male Female Total Male Female Total
April --2021
August --2021
Yes No


Reasons for not working in Feb. 2020 defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Male
Female
Total
Male
Female
Total
April --2021
August --2021
Other
Not able to work (sickness, disability)
Did not need to work
Retired
Studying full time
Taking care of household, children or elderly relatives
Unemployed


Reasons for did not work defined by sex
100%
80%
60%
40%
20%
0%
Male
Female
Total
Male
Female
Total
April --2021
August --2021
Housewife
Retired or had income
Unemployed, looking for work
Studying full time
Leave for family care responsibilities
Leave for own illness, injury, quarantine, to avoid getting sick
Put on leave, furlough, told to wait until called back
Had to stop or close personal or family business
Laid off or fired from paid job
Temporary job ended
Normal for my job


Reasons not able to do more work from home defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Male
Female
Total
Male
Female
Total
April --2021
August --2021
Not allowed
Lack internet connection, IT equipment
The work cannot be done online
The work cannot be done from home
Caregiving responsibilities
No need to
Other (specify)



Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

4.4. Working conditions

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the working conditions defined by the number of working hours in the past seven days, that implies that less than third of all households (32%), less than half of males (43%) and less than fifth of females (19%) spend at least one hour working in the past seven days. While the majority and more than two third of all households (68%), more than half of males (57%) and more than half of females (81%) did not spend at least one hour working in the past seven days. Less than a quarter of all households (22%) and females (11%) and less than third of males (31%) worked for someone else for pay, for one or more hours last week. While the majority and more than half of all households (78%), females (89 %) and males (69%) did not work for someone else for pay, for one or more hours last week. The possibility of spending at least one hour working in the past seven days, and the possibility of worked for someone else for pay, for one or more hours last week for males are more than twice higher than females. (See Figure 9)

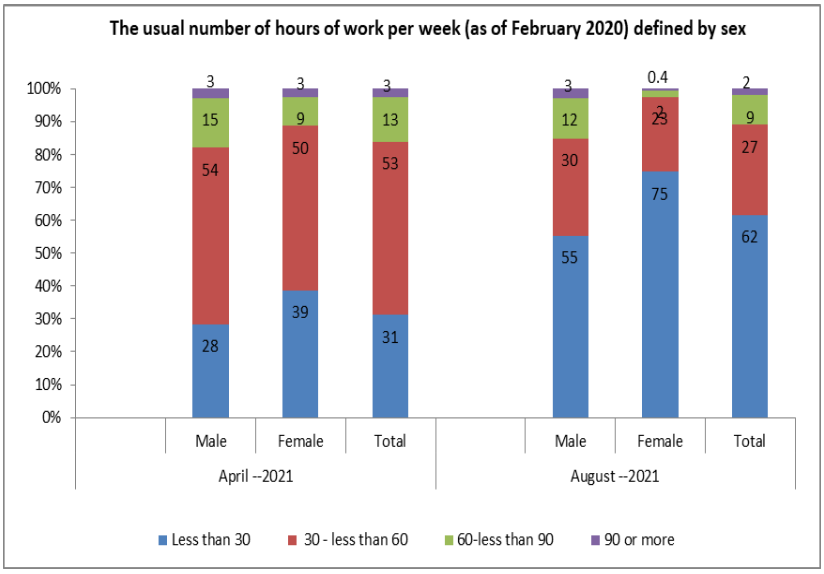
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that the working conditions defined by the usual number of hours of work per week (as of February 2020), for the majority and more than half of all households the usual number of hours of work per week is (30 - less than 60 hours) (53%), followed by (less than 30 hours) (31%), (60 and less than 90 hours) (13%), and (90 or more hours) (3%) respectively. For the majority and more than half of males the usual number of hours of work per week is (30 - less than 60 hours) (54%), followed by (less than 30 hours) (28%), (60 and less than 90 hours) (15%), and (90 or more hours) (3%) respectively. For the majority and half of females the usual number of hours of work per week is (30 - less than 60 hours) (50%), followed by (less than 30 hours) (39%), (60 and less than 90 hours) (9%), and (90 or more hours) (3%) respectively.

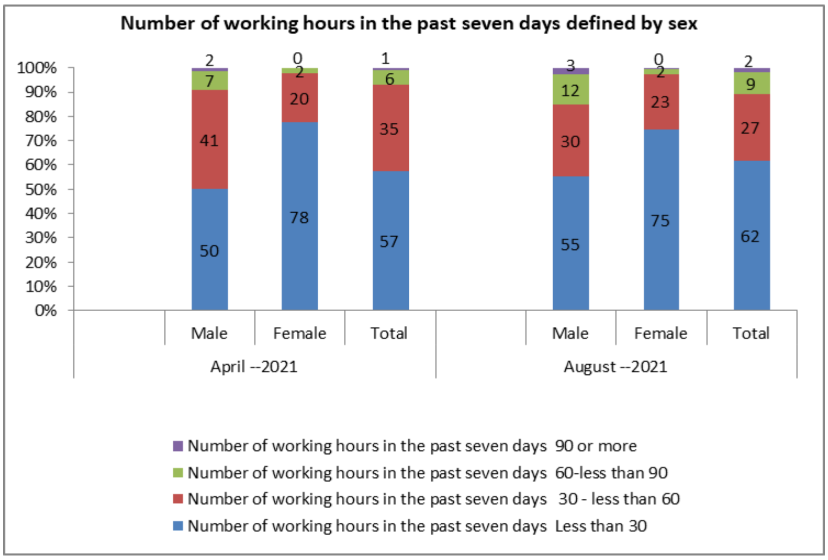
The working conditions defined by the work inside the establishment in February 2020, indicates that the majority and more than three quarter of all households (76%), males (75%), and females (76%) did not do work inside the establishment, while less than a quarter of all households (24%), males (25%), and females (24%) indicate that they are working inside the establishment. (See Figure 9)

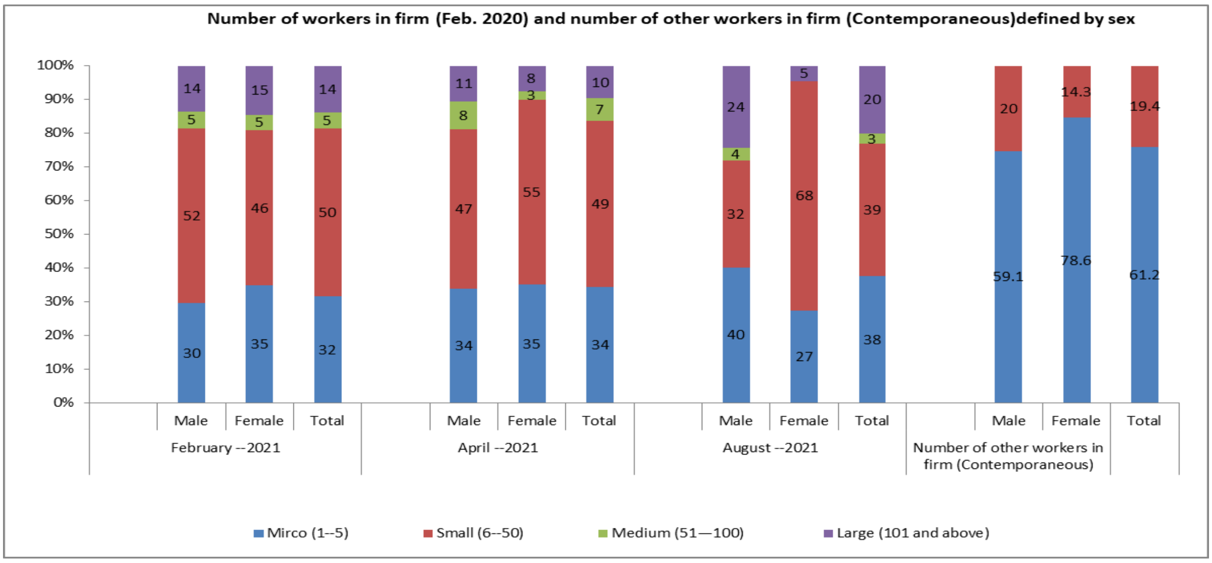
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the working conditions defined by the social safety net defined by having social insurance as the end of February 2020, that implies that the majority and nearly two thirds of all households (67%, 75%), males (67%, 74%), and females (69%, 77%) did not have social insurance in April 2021 and August 2021. Attainment of social insurance and social safety net decreased between April 2021 and August 2021, as nearly third of all households (33%), males (33%), and females (31%) indicate that they are having social insurance in April 2021 compared to nearly a quarter of all households (25%), males (26%), and females (23%) indicate that they are having social insurance in August 2021. (See Figure9)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the working conditions defined by the number of workers in the firm in February 2020, that implies that the majority and nearly half of all households (49%), males (47%), and more than half of females (55%) indicates that the number of workers are small size (6-50 workers), followed by micro size (1-5 workers) reported by more than third of all households (34%) males (34%), and females (35%), followed by large size (101 workers and above) reported by nearly tenth of all households (10%), males (11%), and females (8%), followed by medium size (51-100 workers), reported by less than tenth of all households (7%), males (8%), and females (3%) respectively. (See Figure 9)

Figure 9– The working conditions: number of workers and number of working hours during the COVID-19 pandemic period in Sudan







Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

4.5. Status in business and working status in business

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of workers in business that indicates that in the past 60 days, only few and less than a tenth of all households (9%), males (9%), and females (5%) reported limited hiring of workers (1-200 workers). The status of workers in business also indicates layoff/suspension of workers, delay and change in pay in the past 60 days. For instance, the status of workers indicates temporary layoff/suspension (without pay) increased between April 2021 and August 2021, for more than tenth of all households (17%), males (15%), and females (21%) in August 2021, compared to nearly tenth of all households (9%), males (11%), and females (5%) in April 2021 fifth, the temporary layoff/suspension (without pay) for males is more than twice higher than females in April 2021, while the temporary layoff/suspension (without pay) for females is higher than males in August 2021. More than tenth of all households (14%), males (14%), and females (11%) indicates the temporary layoff/suspension (without pay) of (1-25) workers. The reported temporary layoff/suspension (without pay) for males is higher than females, The status of workers in business also indicates permanent layoff/suspension for less than tenth of all households (7%, 9%), males (9%, 9%), and females (3%, 7%) in April 2021 and August 2021 respectively, permanent layoff/suspension increased between April 2021 and August 2021 in April 2021 the permanent layoff/suspension for males is more than three times higher than females. While more than tenth of all households (14%), and males (14%) indicates the permanent layoff/suspension of (1-150) workers. (See Figure 10)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of workers in business that also indicates delay in wage payment for more than tenth of all households (12%, 25%), males (10%, 24%), and females (16%, 27%) in April 2021 and August 2021 respectively. Between April 2021 and August 2021 the delay in wage payment is more than doubled for all households and males, the delay in wage payment for females is higher than males. Whereas, nearly tenth of all households (9%), males (9%), and females (11%) indicate reduced earnings or delayed payment for (1-25) workers, the reported reduced earnings or delayed payment for females is higher than males. The status of workers in business also indicates change in personal net monthly wage in February 2020 for less than tenth of all households (5%), males (6%), and females (1%), the change of personal net monthly wage in February 2020 for males is nearly six times higher than females. (See Figure 10)

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status of workers in business that also indicates change in more than third of all households (38%), males (38%), and females (38%). For instance, the status of working conditions in business indicates changed hours, although the majority of all households (88%), males (91%), females (79%) indicate no change as the hours stayed the same, but nearly tenth of all households (9%), less than tenth of males (6%), and more than tenth of females (18%) indicate decrease in hours, the reported decrease in hours for females is nearly three times higher than males. The status of workers in business also indicates change in pay, although the majority of all households (91%), males (93%), females (88%) indicate no change as the pay stayed the same, but less than tenth of all households (3%), males (4%), and females (3%) indicate decrease in pay, the reported decrease in pay for males is higher than females. (See Figure 10)

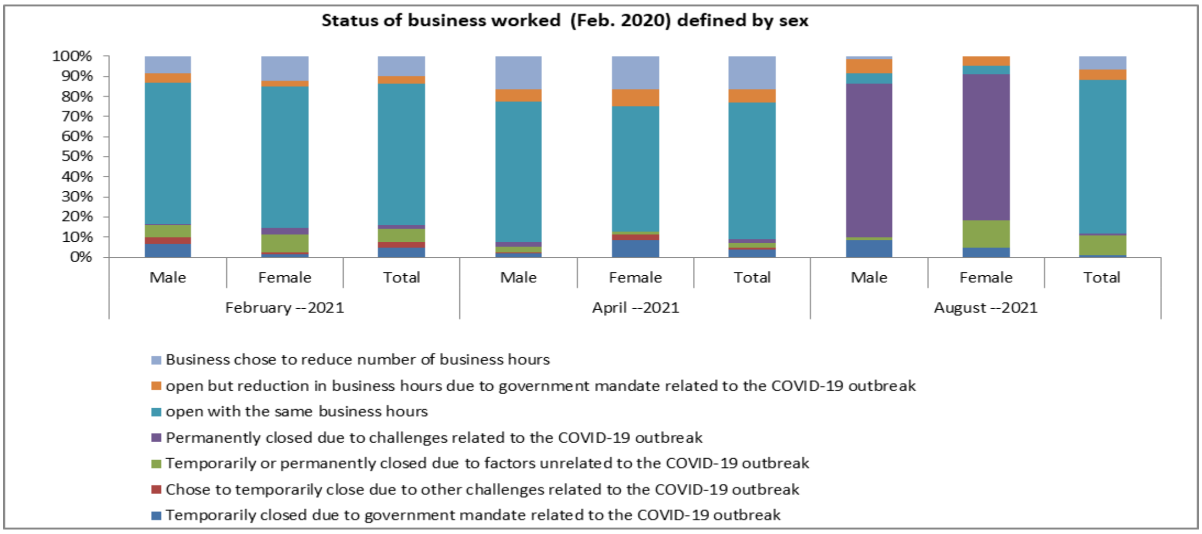
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the status in business defined by change in revenues in the last 60 days compared to the same period in 2019 that implies that although more than third of all households (38%, 12%), males (38%, 12%), and females (37%, 15%) indicate no change in revenues, however, more than third of all households (36%, 58%), males (36%, 58%), and females (42%, 58%) indicate decrease in revenues in the last 60 days compared to the same period in 2019 respectively as indicated by the respondents in April 2021 and August 2021 respectively. (See Figure 10)

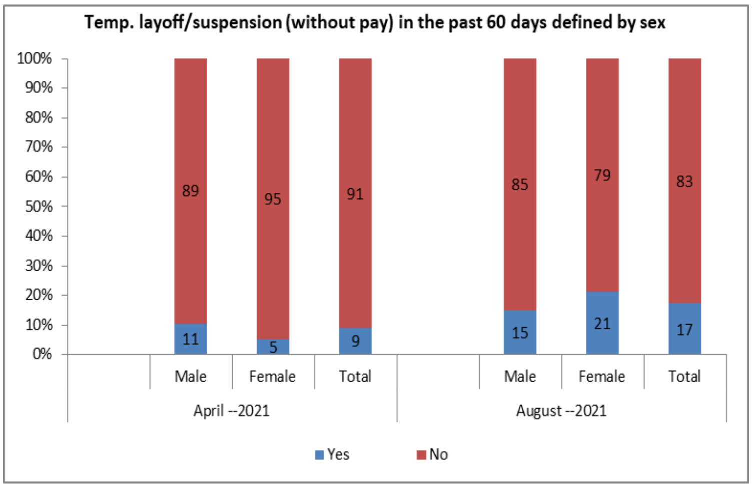
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the current status of business that implies that although the majority of all households (75%, 64%), males (76%, 67%), and females (53%, 5%) reported that the business are open with the same business hours, however, less than tenth of all households (5%, 5%), males (5%, 5%), and females (13%, 73%) reported that the business are temporarily or permanently closed due to factors related to the COVID-19 outbreak or experienced reduction in business hours due to government mandate related to the COVID-19 outbreak in April 2021 and August 2021 respectively. The business reported that they are temporarily or permanently closed due to factors related to the COVID-19 outbreak for females are more than twice higher than males. More than a quarter of all households (26%), and of males (29%) reported that the business closed by government mandate in April 2021, while more than tenth of all households (17%), males (17%) and female (15%) reported that the business closed by government mandate in August 2021. (See Figure 10)

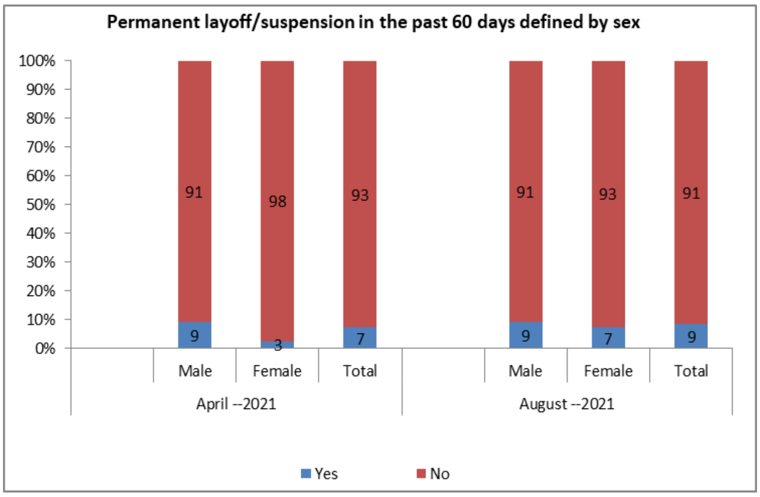
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that in April 2021 the business faced difficulties and challenges in the past 60 days including difficulties in access customers because of government mobility restrictions as indicated by more than a quarter of all households (26%), males (26%), and females (32%). In addition to difficulties in input availability challenges or price increases as indicated by nearly a quarter of all households (24%), males (23%), and nearly half of females (42%). Further to challenge of loss in demand as indicated by nearly quarter of all households (24%), and males (22%), and nearly half of females (47%). In addition to difficulties in access suppliers because of government mobility restrictions as indicated by more than fifth of all households (21%), and males (20%), and more than third of females (37%). In addition to difficulties related to workers absenteeism as indicated by more than tenth of all households (14%), males (13%), and females (26%). In addition to difficulties due to caregiving as indicated by less than a quarter of all households (10%), males (9%), and females (21%). The reported business difficulties and challenges for females are higher than males. (See Figure 10)

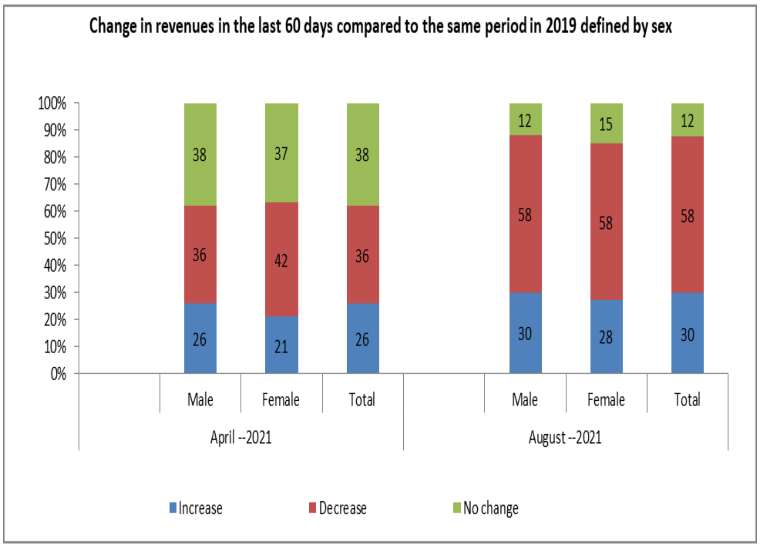
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that in August 2021 the business faced difficulties and challenges in the past 60 days including difficulties in input availability challenges or price increases as indicated by more than half of all households (51%), males (48%), and more than half of females (56%). In addition to difficulties related to workers absenteeism as indicated by more than third of all households (40%), males (38%), and females (44%). Further to challenge of loss in demand as indicated by more than third of all households (36%), and males (34%), and nearly half of females (39%). In addition to difficulties in access customers because of government mobility restrictions as indicated by more than a quarter of all households (23%), males (24%), and females (19%). In addition to difficulties in access suppliers because of government mobility restrictions as indicated by nearly a quarter of all households (24%), and males (24%), and females (24%). In addition to other difficulties as indicated by less than tenth of all households (2%), males (2%), and females (1%). The reported business difficulties and challenges for females are higher than males. (See Figure 10)

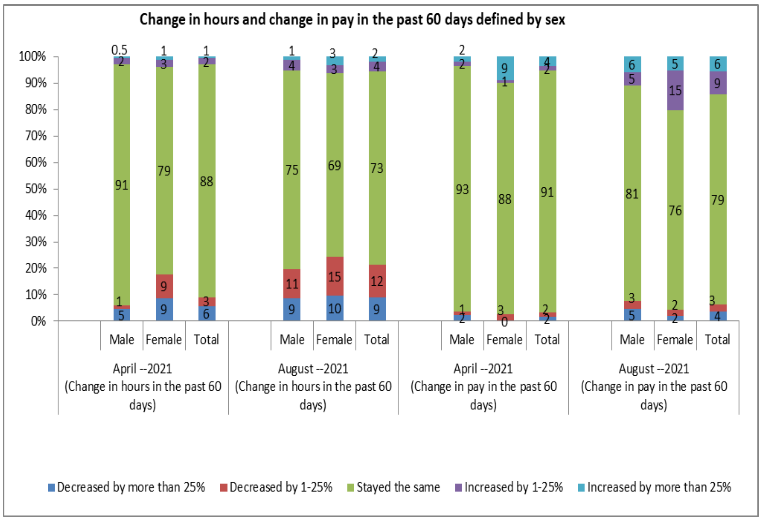
Figure 10 - Status in business and working status in business during the COID-19 pandemuc period in Sudan

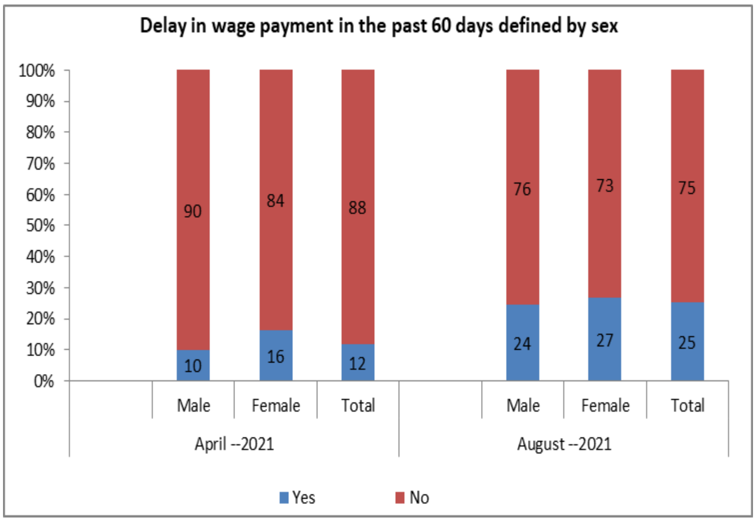


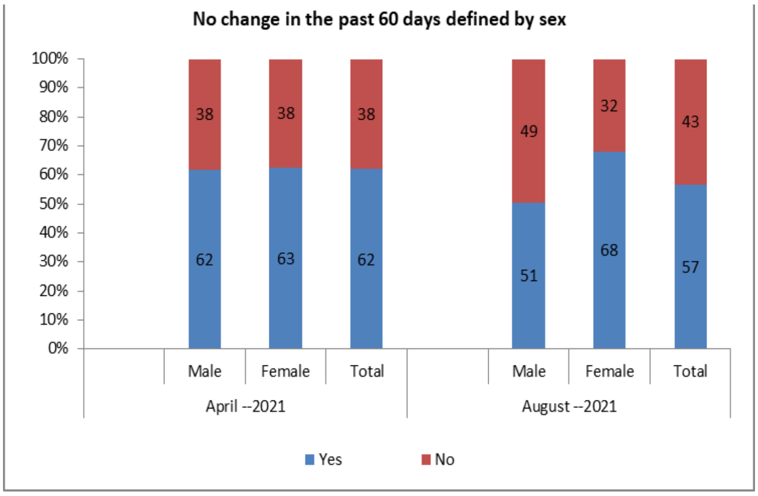


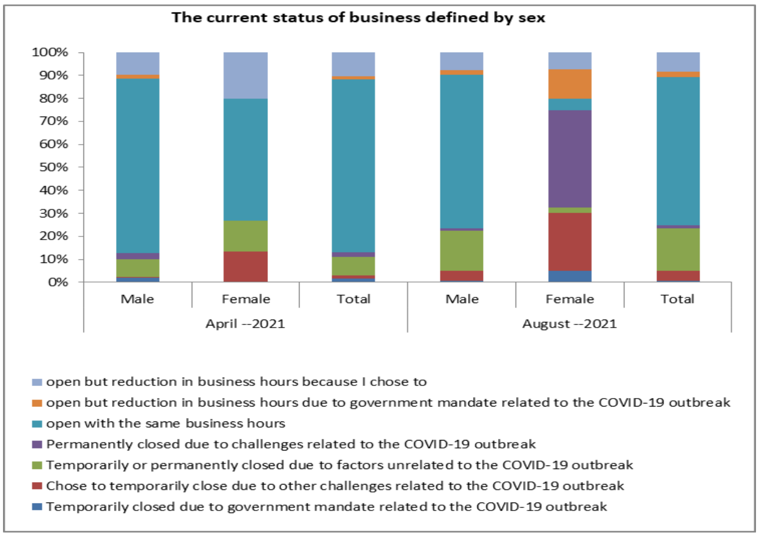


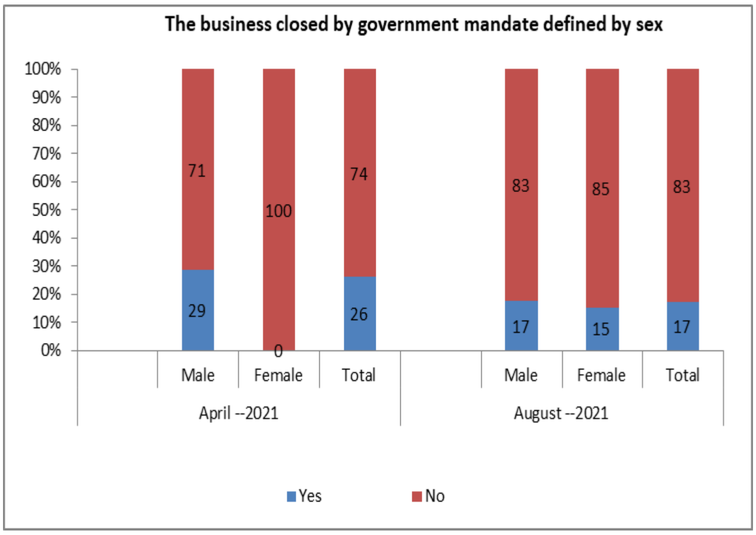

Change in revenues in the last 60 days compared to the same period in 2019 defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
38
36
26
37
42
21
38
36
26
12
58
30
15
58
28
12
58
30
Male
Female
Total
April --2021
Male
Female
Total
August --2021
Increase
Decrease
No change

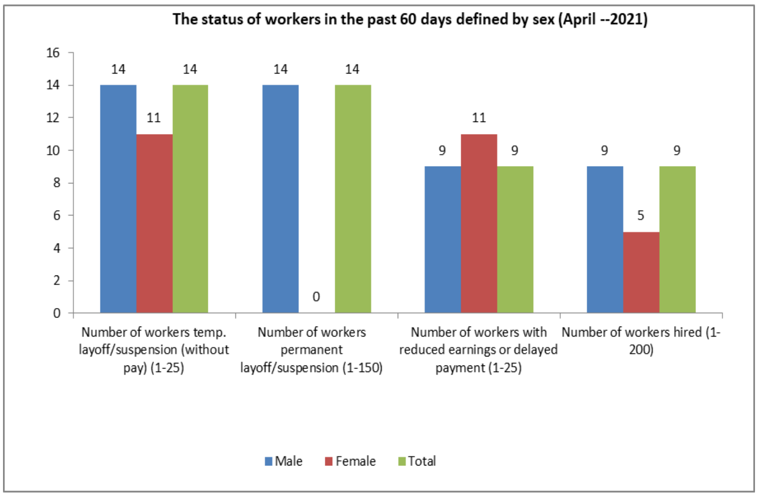

Change in hours and change in pay in the past 60 days defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0.5
2
91
1
5
1
3
79
9
9
1
2
88
3
6
1
4
75
11
9
3
3
69
15
10
2
4
73
12
9
2
2
93
1
2
9
1
88
3
0
4
2
91
2
2
6
5
81
3
5
5
15
76
2
2
6
9
79
3
4
Male
Female
Total
April --2021
(Change in hours in the past 60 days)
Male
Female
Total
August --2021
(Change in hours in the past 60 days)
Male
Female
Total
April --2021
(Change in pay in the past 60 days)
Male
Female
Total
August --2021
(Change in pay in the past 60 days)
Decreased by more than 25%
Decreased by 1-25%
Stayed the same
Increased by 1-25%
Increased by more than 25%

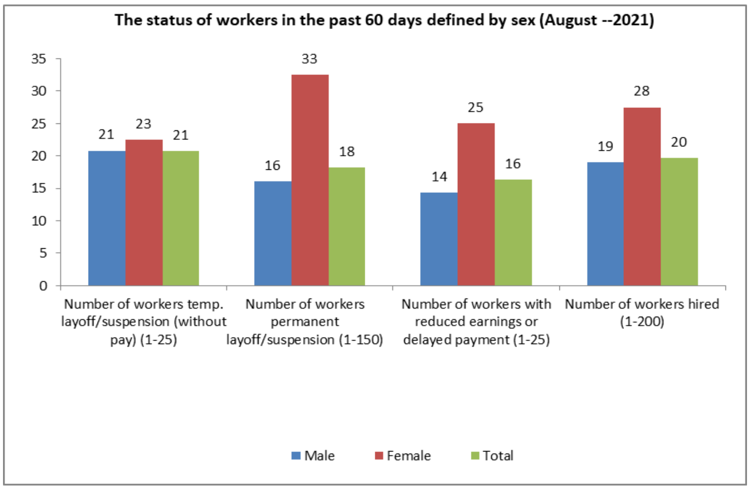

Delay in wage payment in the past 60 days defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
90
10
84
16
88
12
76
24
73
27
75
25
Male
Female
Total
April --2021
Male
Female
Total
August --2021
Yes
No

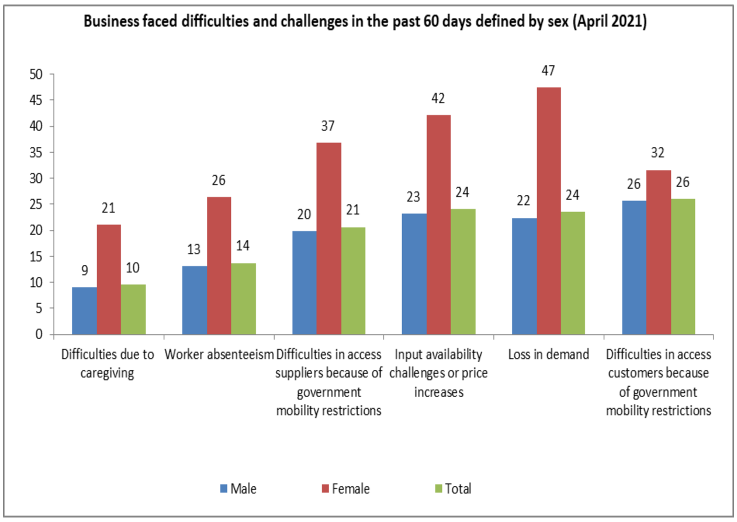

No change in the past 60 days defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
38
38
38
49
32
43
62
63
62
51
68
57
Male
Female
Total
Male
Female
Total
April --2021
August --2021
Yes
No

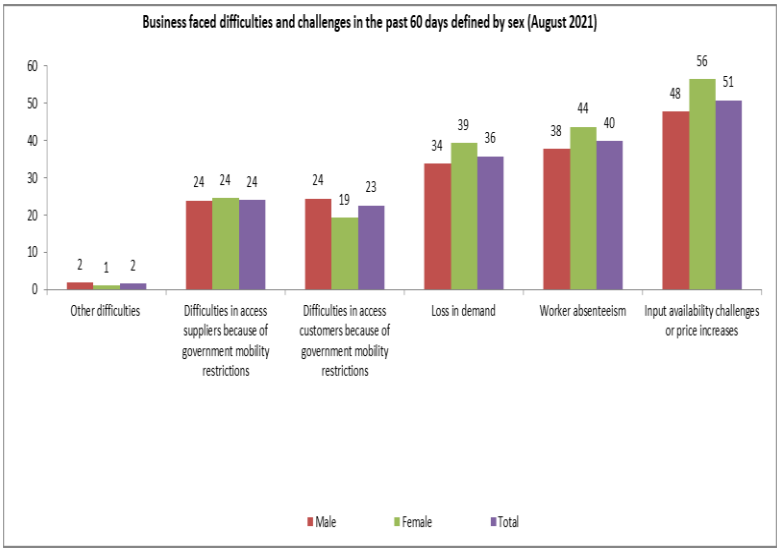

The current status of business defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Male
Female
Total
Male
Female
Total
April --2021
August --2021
open but reduction in business hours because I chose to
open but reduction in business hours due to government mandate related to the COVID-19 outbreak
open with the same business hours
Permanently closed due to challenges related to the COVID-19 outbreak
Temporarily or permanently closed due to factors unrelated to the COVID-19 outbreak
Chose to temporarily close due to other challenges related to the COVID-19 outbreak
Temporarily closed due to government mandate related to the COVID-19 outbreak


The business closed by government mandate defined by sex
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
71
100
74
83
85
83
29
0
26
17
15
17
Male
Female
Total
Male
Female
Total
April --2021
August --2021
Yes
No


The status of workers in the past 60 days defined by sex (April --2021)
16
14
12
10
8
6
4
2
0
14
11
14
14
0
14
9
11
9
9
5
9
Number of workers temp. layoff/suspension (without pay) (1-25)
Number of workers permanent layoff/suspension (1-150)
Number of workers with reduced earnings or delayed payment (1-25)
Number of workers hired (1-200)
Male
Female
Total


The status of workers in the past 60 days defined by sex (August --2021)
35
30
25
20
15
10
5
0
21
23
21
16
33
18
14
25
16
19
28
20
Number of workers temp. layoff/suspension (without pay) (1-25)
Number of workers permanent layoff/suspension (1-150)
Number of workers with reduced earnings or delayed payment (1-25)
Number of workers hired (1-200)
Male
Female
Total


Business faced difficulties and challenges in the past 60 days defined by sex (April 2021)
50
45
40
35
30
25
20
15
10
5
0
9
21
10
13
26
14
20
37
21
23
42
24
22
47
24
26
32
26
Difficulties due to caregiving
Worker absenteeism
Difficulties in access suppliers because of government mobility restrictions
Input availability challenges or price increases
Loss in demand
Difficulties in access customers because of government mobility restrictions
Male
Female
Total



Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

4.6. Wages, income and revenue

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) show the effects on wages during the COVID-19 pandemic period. For instance, although the majority of households indicate that they were able to go to the place of work or work from home as usual for their paid job (82%), however, nearly fifth of households indicate that they were not able to go to the place of work or work from home as usual for their paid job (18%) (See Figure 11). The households' ability to go to the place of work or work from home as usual for their paid job vary according to gender. For instance, the ability to go to the place of work or work from home as usual for paid job for males (84%) is higher than females (77%), the inability to go to the place of work or work from home for females (23%) is higher than males (16%). (see Figure 11).

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) indicate the effects on the received payment during the COVID-19 pandemic period. For instance, although more than third of households who were not able to work as usual were paid full normal wage (35%), however, the majority and nearly half of households received partial payment (46%), while, nearly fifth of households did not receive payment (19%) (See Figure 16). The majority and more than third of males who were not able to work as usual received full payment (42%), compared to more than tenth of females (13%); this implies that full payment for males is more than three times higher than females. The majority of females who were not able to work as usual received partial payment (73%), this implies that the partial payment received by females is nearly twice higher than males (38%). More than fifth of males who were not able to work as usual did not receive any payment (21%), which is higher than females (13%) (See Figure 11). The reasons households were not able to work as usual for the majority of households because of business / gov't closed due to coronavirus legal restrictions and/ or for another reason (80%), followed by furlough (7%), ill / quarantined (7%), and seasonal worker (7%). The reasons households were not able to work as usual vary according to gender (see Figure 16). For instance, for females the only reason was only because of business / gov't closed due to coronavirus legal restrictions and / or for another reason (100%). While, for males, the reasons was because of business / gov't closed due to coronavirus legal restrictions and / or for another reason (75%), followed by furlough (8%), ill / quarantined (8%), and seasonal worker (8%).. (See Figure 11)

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) indicate the declining or stagnating revenues from business sales. For instance, for the majority and more than half of the households the reported revenue from the business sales is less compared to [last month] (53%), while, more than a quarter of households reported same revenue from the business sales (25%), while, more than tenth of households reported no revenue from the business sales (16%), and less than tenth of households reported higher revenues from the business sales (6%) compared to [last month]. The change in revenues from business sales vary according to gender. The majority of households (69%), females (54%), males (70%), reported either no revenue or less revenue from the business sales compared to [last month]. The main reasons for getting no revenue or less revenues from sales than in [last month] for households because usual place of business closed due to coronavirus legal restrictions (41%), while, other reasons because of no customers/ fewer customers (30%), other (14%), can't get inputs (6%), can't travel / transport goods for trade (6%), seasonal closure (2%), vacation (0.3%) and other (no fuel (8%)). The main reason for females because usual place of business closed due to coronavirus legal restrictions (65%), and no customers / fewer customers (35%). The main reason for males because usual place of business closed due to coronavirus legal restrictions (44%), no customers/ fewer customers (29%), other (15%), can't travel/ transport goods for trade (5%), seasonal closure (7%), and other (no fuel (17%)). (See Figure 11)

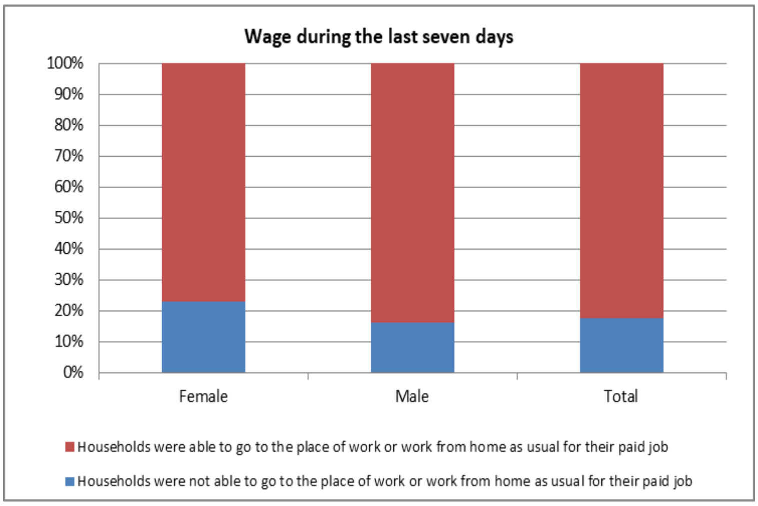
4.7. Income

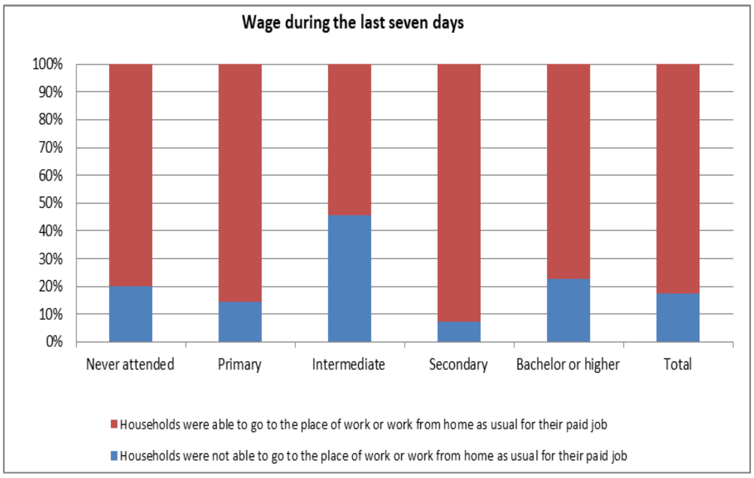
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the distribution of personal net monthly wage in February 2020 that implies that the majority and nearly half of all households classified among high wage group (15,000 or more) (46%), followed by lower middle wage group (5000 - less than 10000) (20%), low monthly wage group (less than 5000 SDG) (20%), and upper middle wage group (10,000-less than 15,000) (15%) respectively. The majority and more than half of males classified among high wage group (15,000 or more) (51%), followed by lower middle wage group (5000 - less than 10000) (19%), low wage group (less than 5000 SDG) (14%), and upper middle wage group (10,000-less than 15,000) (15%) respectively. The majority and nearly third of females classified among high wage group (15,000 or more) (33%), followed by low wage group (less than 5000 SDG) (29%), lower middle wage group ((5000 - less than 10000) (24%), and upper middle wage group (10,000-less than 15,000) (15%) respectively. (See Figure 11)

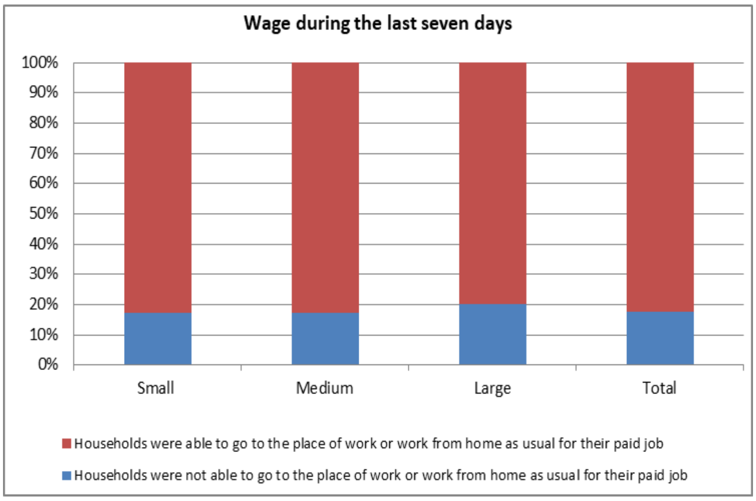
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the distribution of personal net monthly wage in the past month that implies that the majority and nearly two thirds of all households classified among high wage group (15,000 or more) (66%), followed by upper middle wage group (10,000-less than 15,000) (16%), lower middle wage group (5000 - less than 10000) (10%), and low wage group (less than 5000 SDG) (8%) respectively. The majority and nearly two thirds of males classified among high wage group (15,000 or more) (64%), followed by upper middle wage group (10,000-less than 15,000) (19%), lower middle wage group (5000 - less than 10000) (8%). and low wage group (less than 5000 SDG) (9%), respectively, The majority and more than two thirds of females classified among high personal net monthly wage group (15,000 or more) (69%), followed by lower middle wage group (5000 - less than 10000) (15%), upper middle group (10,000-less than 15,000) (9%), and low middle wage group (less than 5000 SDG) (6%) respectively. (See Figure 11)

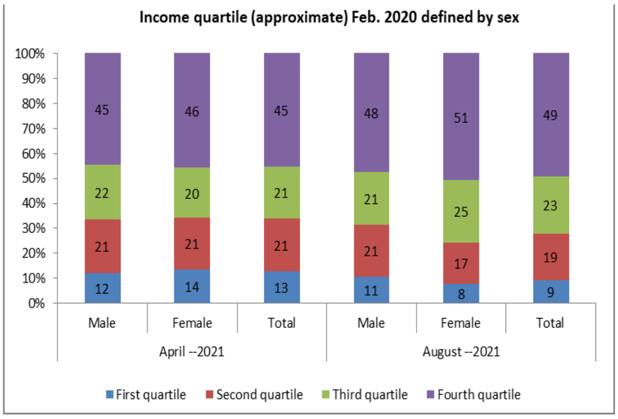
The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show the distribution of household by income quartile (approximate) in February 2020 that implies that the majority and nearly half of all households (45%), males (45%), and females (46%) are classified in the fourth quartile, followed by less than a quarter of all households (21%), males (22%), and females (20%) classified in the third quartile, followed by less than a quarter of all households (21%), males (21%), and females (20%) classified in the second quartile, followed by less than a quarter of all households (13%), males (12%), and females (14%) classified in the first quartile respectively. (See Figure 11)

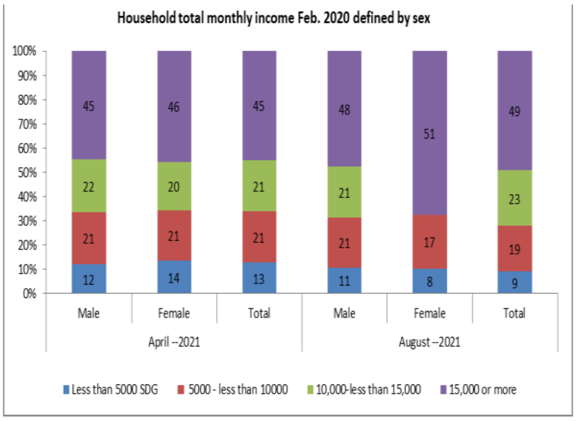
Figure 11– Wages, income and revenue during the COVID-19 pandemic period in Sudan

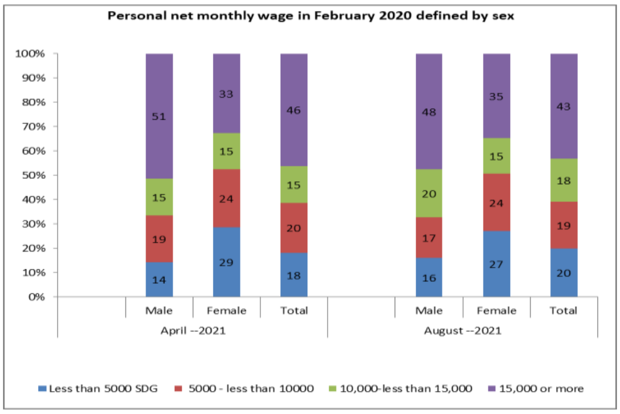


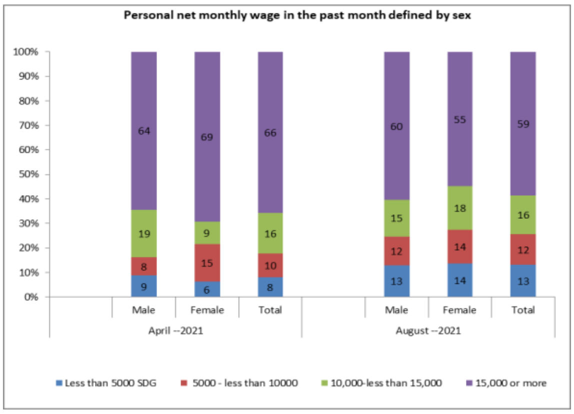












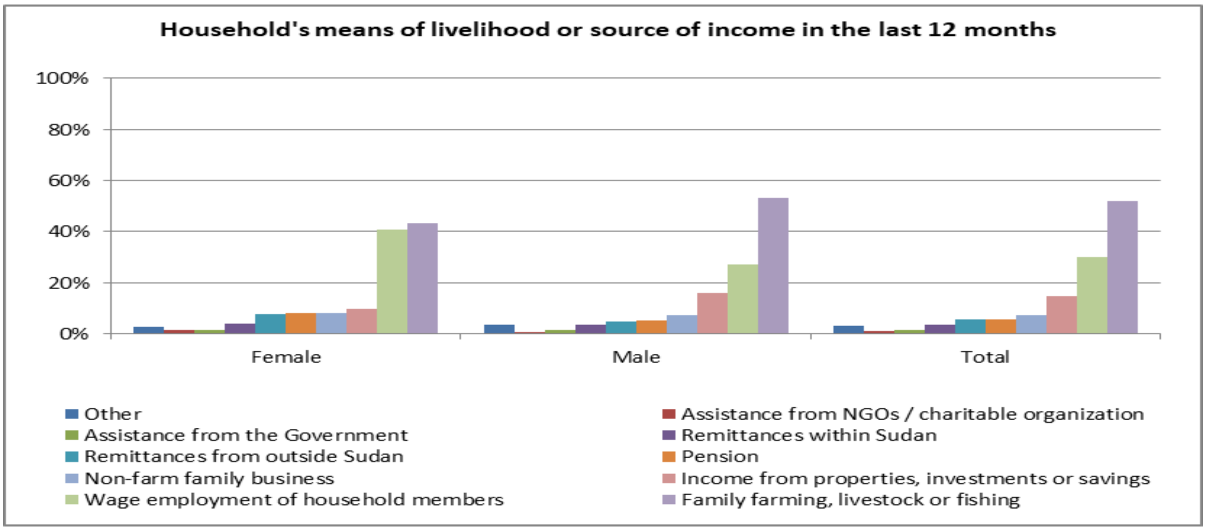
Source: (1) Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020) and (2) Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

4.8. Households' mean of livelihood and source of income

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) show the effects on households' means of livelihood or source of income during the COVID-19 pandemic period. The majority and more than half of households indicate that the means of livelihood or source of income in the last 12 months are family farming, livestock or fishing (52%), while, nearly third of households depend on wage employment of household members (30%), and less than fifth of households depend on income from properties, investments or savings (15%). Whereas, less than tenth of households depend on non-farm family business (7%), pension (6%), remittances from outside Sudan (6%), and remittances within Sudan (4%), while, few households depend on assistance from the government (1.5%), assistance from NGOs/ charitable organization (1%), and other (3%) (See Figure 12). The means of livelihood or source of income in the last 12 months vary according to gender. For instance, the reported dependency on family farming, livestock or fishing and income from properties, investments or savings for males are higher than females, while, the reported dependency on wage employment of household members, non-farm family business, pension, and remittances from outside Sudan and remittances within Sudan for females are higher than males. (see Figure 12).

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) show the effects on the loss of households' means of livelihood or source of income during the COVID-19 pandemic period. For instance, the majority and more than half of households indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from non-farm family business (53%) and other (91%), while, nearly half of households indicate loss and reduction in income from properties, investments or savings (48%), and assistance from the government (44%). More than third of households indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from remittances within Sudan (40%), and from family farming, livestock or fishing (39%). While, more than a quarter of households indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from remittances from outside Sudan (27%), assistance from NGOs / charitable organization (26%), and wage employment of household members (25%). Few and less than tenth of household indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from pension (8%) (See Figure 12). The loss and reduction in income and means of livelihood or source of income since mid-March 2020 vary according to gender. For instance, all females indicate loss and reduction in the means of livelihood or source of income, since mid-March 2020 from remittances within Sudan (100%). The majority and more than half of females indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from income from properties, investments or savings (84%), family farming, livestock or fishing (50%). While, nearly third of females indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from remittances from outside Sudan (32%), and assistance from the government (31%). While, less than fifth of females indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from wage employment of household members (16%), non-farm family business (11%), pension (5%), assistance from NGOs / charitable organization (0.1%), and other (0.2%) respectively. The majority and more than half of males indicate the loss and reduction in the means of livelihood or source of income since mid-March 2020 from remittances within Sudan (94%), and non-farm family business (56%). While, nearly half of males indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from assistance from the government (48%), and income from properties, investments or savings (46%). While, more than third of males indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from family farming, livestock or fishing (37%), whereas, more than a quarter of males indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from wage employment of household members (29%), and remittances from outside Sudan (26%). While, less than tenth of males indicate loss and reduction in the means of livelihood or source of income since mid-March 2020 from pension (9%), assistance from NGOs / charitable organization (0.1%), and other (0.2%) respectively. (See Figure 12)

Figure 12- Household's means of livelihood or source of income in the last 12 months and loss of income during the COVID-19 pandemic period in Sudan

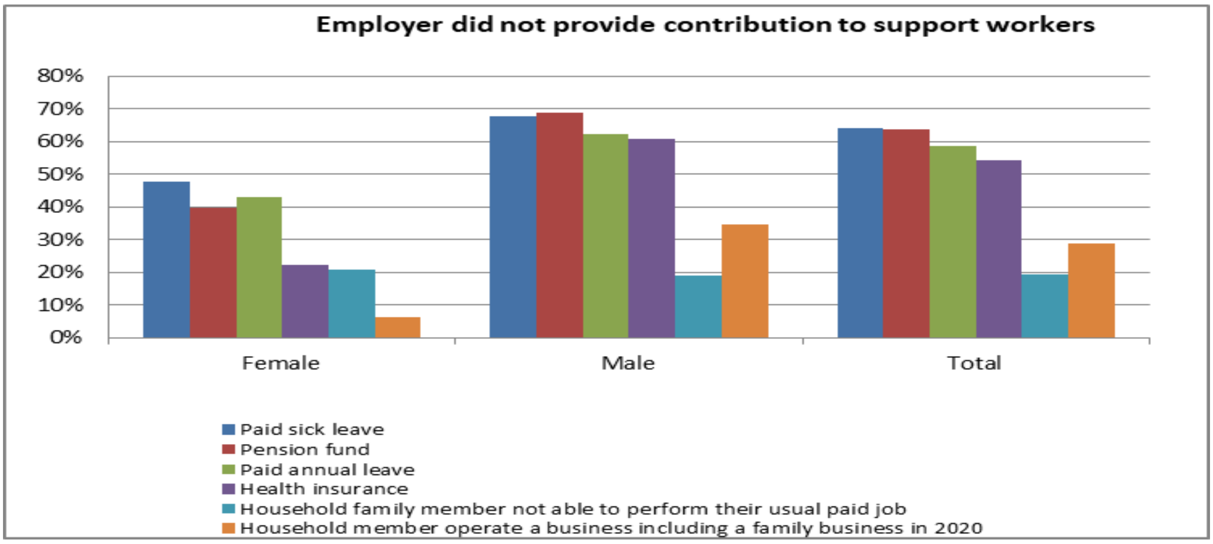


Source: Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020)

4.9. Employers' provision and contribution to social protection of workers

The analysis using the World Bank and Sudan households COVID-19 Survey data (2020) indicate the weak employers' provision and contribution to social protection of workers during the COVID-19 pandemic period. For instance, the majority and more than half of households indicate that employer did not provide contribution to paid sick leave (64%), pension fund (64%), paid annual leave (59%), and health insurance (54%). Moreover, nearly fifth of the households indicate that employer did not provide contribution to household family member not able to perform their usual paid job (20%), and more than a quarter of household member operate a business including a family business in 2020 (29%). (See Figure 13)

Figure 13- Employers' provision and contribution to social protection of workers during COVID-19 pandemic period in Sudan

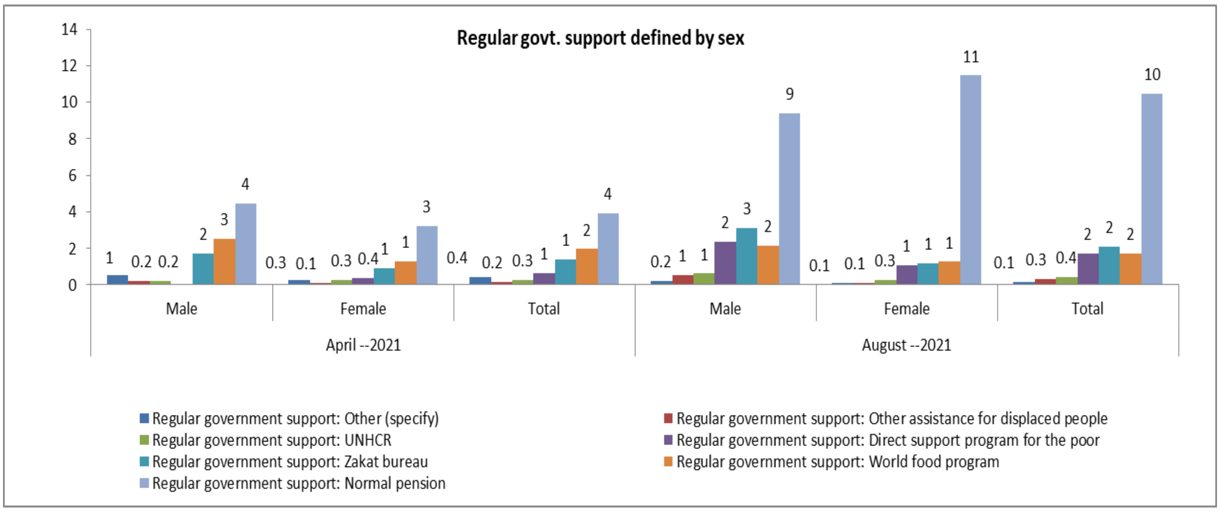


Source: Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020

4.10. Government support and social support over the Covid-19 crisis from the opinions of the respondent households

The analysis using the ERF COVID MENA Monitor Sudan Survey data (2021) show that, from the opinions of the respondent households, regular government support would need to include measures such as: assistance for displaced people, UNHCR, direct support program for the poor, Zakat bureau, World Food Program, normal pension and other respectively. The survey data did not include information about the termination or planned termination of the non-usual measures. Past month (not usual) government support includes food, cash, commodity support (Selaaty), other cash assistance, and cash for unemployed respectively. Past month (not usual) social support includes limited support from relatives abroad, relatives in country, NGO/CSO, church/mosque and other respectively (see Figure 14). Regular government support varies according to income level, for instance, the highest regular government support provided to the very low income and low-income groups compared to medium income group and high-income groups in April 2021 and in August 2021. (See Figure 14)

Figure 14- Regular government support during COVID-19 crisis in Sudan

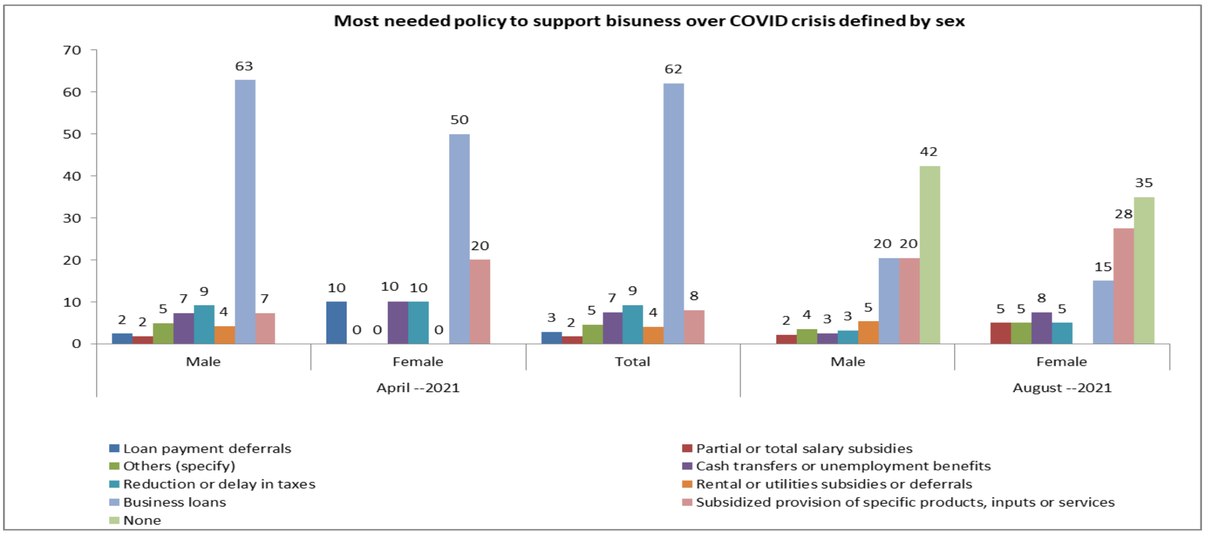


Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

4.11. The most needed policy to support businesses over the Covid-19 crisis from the opinions of the respondent firms

The analysis using the first wave (April 2021) ERF COVID MENA Monitor Sudan Survey data (2021) indicate from the opinions of the respondent firms what are the most needed policy to support business over COVID-19 crisis. The majority and nearly two thirds of all households report that the most needed policies to support business are: business loans (62%), reduction or delay in taxes (9%), subsidized provision of specific products, inputs or services (8%), cash transfers or unemployment benefits (7%), rental or utilities subsidies or deferrals (4%), loan payment deferrals (3%), partial or total salary subsidies (2%), and others (5%) respectively. The analysis using the second wave (August 2021) ERF COVID MENA Monitor Sudan Survey data (2021) indicate the most needed policies to support business over COVID-19 crisis, that implies that for the majority and more than fifth of all households the most needed policy to support business is subsidized provision of specific products, inputs or services (21%), followed by business loans (20%), rental or utilities subsidies or deferrals (5%), others (4%), reduction or delay in taxes (3%), cash transfers or unemployment benefits (3%), and partial or total salary subsidies (3%) respectively. (See Figure 15)

Figure 15 - The most needed policy to support business over COVID-19 crisis from the opinions of the respondent firms in Sudan



Source: Author own calculation based on ERF COVID MENA Monitor Survey data: COVID-19 Monitor Sudan HH (April 2021-August 2021)

Therefore, the results in this section provide answer to Q1 and Q2, and fulfil part of the research objectives in section 1 above. Mainly, this section discusses the status of households (labour market status, working conditions, employment and unemployment), during the COVID-19 pandemic period economic impacts and social impacts (on social protection to workers) on households in Sudan defined by household characteristics (defined by gender). This section also fulfils the research objective to explain the status of household and individual source of income, changes in source of income, and the effects on the loss of households' means of livelihood or source of income in Sudan, the impact of COVID-19 on household enterprises, workers livelihoods, income, labour market status, employment, and working conditions and policy measures to manage the impacts on workers in Sudan. This section finally fulfils the research objective to show the differences in the effects of COVID-19 on households in Sudan, according to household characteristics (defined by gender).

5. Covid-19 and the Micro, Small and Medium size enterprises (MSME)

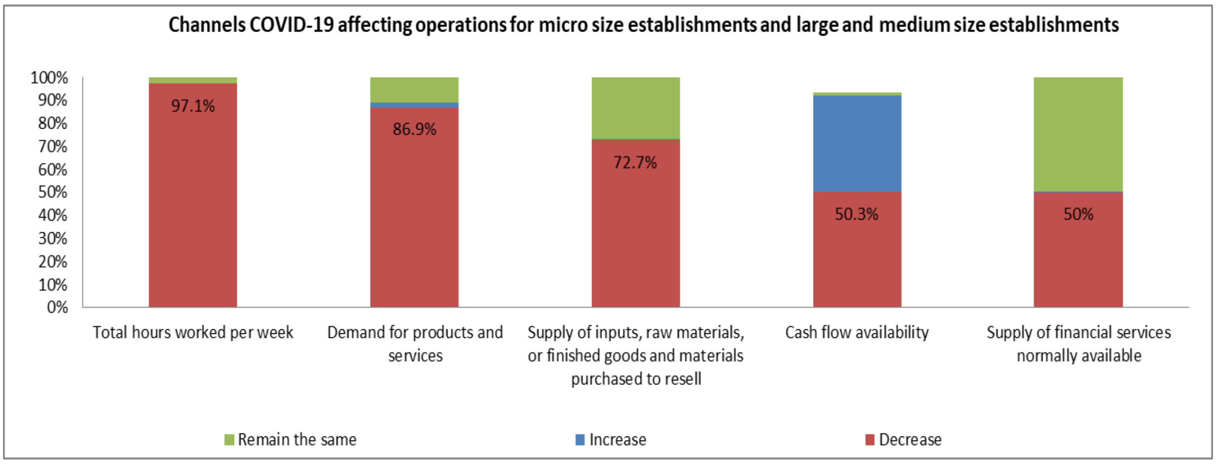
The analysis in this last section uses the World Bank and Sudan households COVID-19 Survey data (2020). It shows about the status of the micro, small and medium size enterprises (MSME) during the COVID-19 pandemic (with data solely based on the Firms survey). During the COVID-19 pandemic period the operation and current status of the establishments implies that although few of the establishments are opened (6%), and the majority and nearly two third of the establishments are only partially opened (64%) (Cannot operate normally due to government regulations), but nearly fifth of the establishments are temporary closed (either mandated by government or closed by own choice) (21%), and nearly tenth of the establishments are permanently closed (8%). During the COVID-19 pandemic period, the duration of lockdown period as measured by the number of weeks that the establishment has been closed implies that the majority and nearly half of the establishments have been closed for 10-12 weeks (47%), while, more than a quarter of the establishments have been closed for 13-20 weeks (27%), and more than a quarter of the establishments have been closed for 3-8 weeks (27%).

During the COVID-19 pandemic period, the comparison of the establishment sales for the last 3 months (before August 2020) with the same period in 2019 implies that the majority of the establishments reported decrease in sales (81%), some of the establishments indicated that the sales remain the same (15%), and few of the establishments indicated increase in sales (4%). The majority of the establishments indicate high rate of decrease in sales (88%). The majority of the establishments indicated substantial rate of decrease (by 50%-100%) (70.8%), some of the establishments indicated moderate rate of decrease (by 25%-45%) (20%), few of the establishments indicated small rate of decrease (by 5%-20%) (7%), and few of the establishments showed serious substantial rate of decrease (by 150%-200%) (2%).

During the COVID-19 pandemic period and the distribution of employment in the last 3 months (before August 2020) shows that the majority of full time and part time workers were hired by micro size establishments (0-4) (89%), few were hired by small size establishments (5-19) (8%), by medium size establishments (20-99) (3%) and by the large size establishments (100+) (1%). In addition, the majority and nearly two third of women were hired by medium size establishments (20-99) (62%), while more than third of women were hired by micro size establishments (0-4) (38%). During the COVID-19 pandemic period the majority of laid off workers were hired by micro size establishments (0-4) (99%), very few were hired by small size establishments (5—19) (1%), and were hired by medium size establishments (20-99) (1%). All laid off women were hired by micro size establishments (0-4) ((100%) see Figure 6). During the COVID-19 pandemic period the highest reduction in salary, wages, or benefits is reported at the micro size establishments (0-4) (99%), while, minor reduction reported at the small size establishments (5-19) (1%) and at the large size establishments (100+) (1%). For all women all the reduction in salary, wages, or benefits were reported at the micro size establishments (0-4) (100%) (See Figure 6). During the COVID-19 pandemic period the substantial reduction in the number of hours was reported at the micro size establishments (0-4) (99%), while, minor reduction in the number of hours was reported at the small size establishments (5—19) (1%) and the medium size establishments (20-99) (1%) respectively. For the majority of women the reduction in the number of hours was reported at the micro size establishments (0-4) (99.7%), and minor reduction in the number of hours was reported at the medium size establishments (20-99) (0.3%).

During the COVID-19 pandemic period the channels affecting operations in the establishments include the change in total hours worked per week, demand for products and services, and supply of inputs and raw materials. For instance, during the COVID-19 pandemic early period (April to July 2020) [before August 2020] , the majority of the establishments indicate decrease in total hours worked per week (97%), decrease in the demand for products and services (87%), decrease in the supply of inputs, raw materials, or finished goods and materials purchased to resell (73%), of the establishments indicate decrease in cash flow availability (50%), and decrease in the supply of financial services normally available (50%). In addition, the majority of the establishments indicate decline in the supply of inputs, raw materials, or goods purchased to resell due to transportation and logistical reasons (92%). During the COVID-19 pandemic period the number of days the establishment could continue paying all costs and payments (such as payroll, suppliers, taxes or loan repayment), implies that less than third of the establishments indicate up to 30 days (one month) (32%), while, few of the establishments indicate up to 60 days (two months) (12%), few of the establishments indicate up to 180 days (six months) (3%) and few of the establishments indicate up to 365 days (12 months) (one year) (2.9%) (See Figure 16).

Figure 16- Channels affecting operations for micro size, large size and medium size establishments

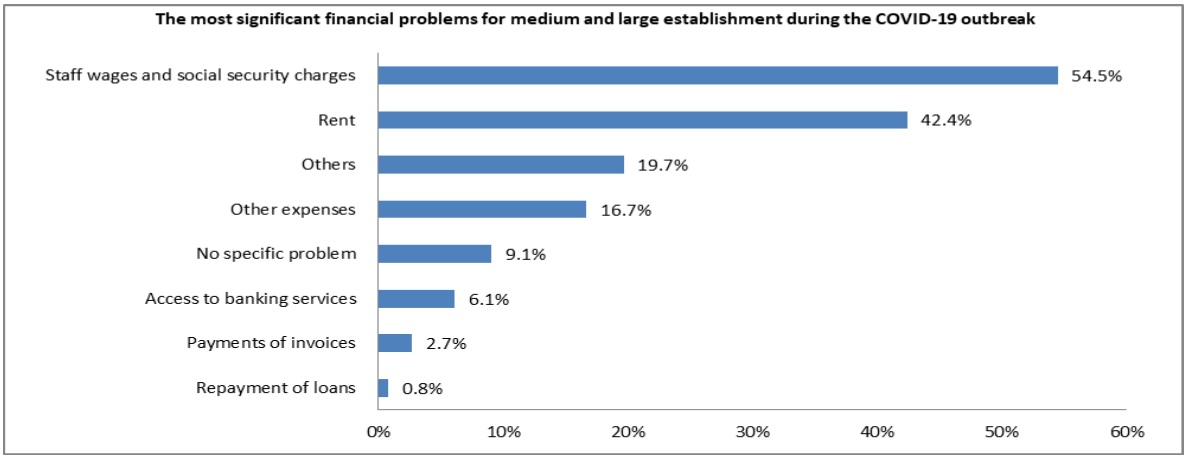


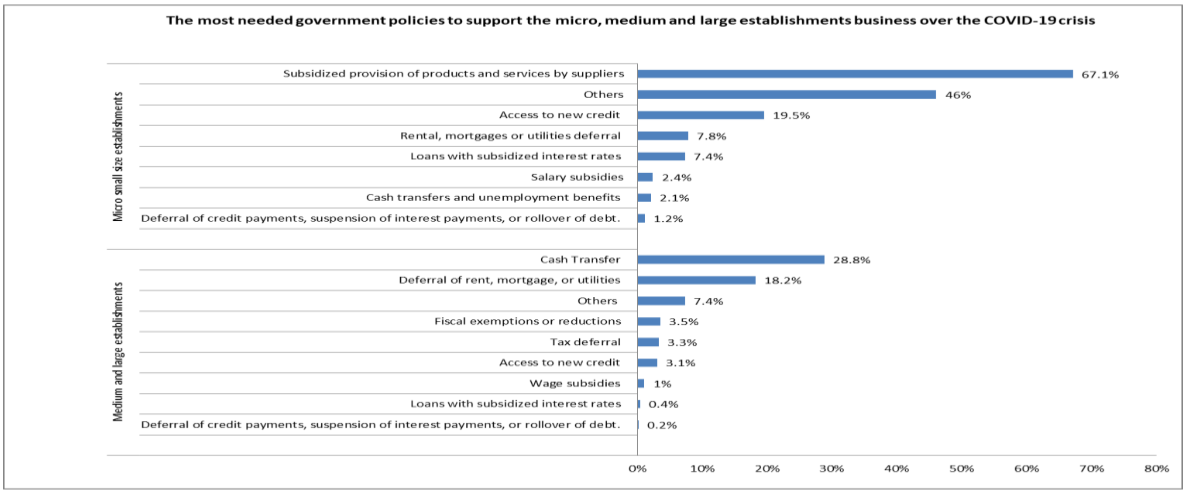
Source: Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020)

From the opinions of the respondent medium and large size establishments, the financial problems confronting the medium and large establishments during the COVID-19 outbreak include staff wages and social security charges (55%), rent (42%,), other expenses (16%), banking services (6%), payments of invoices (3%), repayment of loans (1%), and others (20%) respectively.

From the perspectives and from the opinions of the respondent medium and large size establishments, the most needed government policies to support the business over the COVID-19 crisis are: cash transfer (29%), deferral of rent, mortgage, or utilities (18%), fiscal exemptions or reductions (4%), tax deferral (3%), access to new credit (3%), wage subsidies (1%), loans with subsidized interest rates (0.4%), deferral of credit payments, suspension of interest payments, or rollover of debt (0.2%), and others (7%) respectively. From the perspective and form the opinions of the respondents micro size establishments, the most needed policies to support the micro size establishments or business over the COVID-19 crisis are: the subsidized provision of products and services by suppliers (67%), access to new credit (20%), rental, mortgages or utilities deferral (8%), loans with subsidized interest rates (7%), salary subsidies (2%), cash transfers and unemployment benefits (2.1%), deferral of credit payments, suspension of interest payments, or rollover of debt (1%), and other (46%) respectively. (See Figure 17)

Figure 17 - Policies for micro size establishments and large and medium size establishments





Source: Author's calculations based on World Bank and Sudan Central Bureau of Statistic Sudan High Frequency Survey on COVID-19 (2020)

Therefore, the results in this section provide answer to Q. 3 and Q4 concerning the firms' current status of work and business operations, sales, revenue, workers, and access to inputs in Sudan, and the differences in across firms according to firms' characteristics (firm size) in Sudan during the COVID-19 pandemic period. The findings in this section provide answer to Q. 4 regarding the main challenges, mainly financial problems facing firms due to COVID-19 in Sudan. The effects of the lockdowns or the stringency of policy measures on firms in Sudan, and the main policy response and absence of government support for firms in Sudan. The results in this section fulfil part of the research objectives in section 1 above. Mainly this section investigates firms' current status of work and business operations, sales, revenue, workers, and access to inputs in Sudan defined by firms' characteristics (defined by firm size) during the COVID-19 pandemic period. This section also fulfils the research objective to show the main challenges facing firms due to COVID-19, the effects of lockdowns, policy measures, and the policy response and government support for firms in Sudan.

Our results in this Sections 4-5 regarding the status of households and firms during the COVID-19 pandemic are consistent with the findings in the MENA literature concerning the economic impact of COVID-19 in households and firms in the MENA countries (e.g. Jordan, Egypt, Morocco and Tunisia) (cf. recent studies based on the Economic Research Forum (ERF) COVID-19 MENA Monitor Data, 2020-2021) and in the international literature concerning the impact of coronavirus (COVID-19) on households and firms (cf. Morgan and Trinh, 2021).

6. Conclusions

This paper discusses the status of households and firms during the COVID-19 pandemic period in Sudan as a case study of the MENA countries. The research uses the descriptive and comparative approaches and uses new primary data obtained from the ERF COVID MENA Monitor Household Survey (2021) and from the World Bank and Sudan Central Bureau of Statistic High Frequency Survey on COVID-19 (2020).

One important contribution of this research is to fill the gap in the literature with a comprehensive and in-depth investigation about household's labour market status, employment, unemployment, income, and working conditions during the COVID-19 pandemic, the micro, small and medium size enterprises' current status of work and business operations in Sudan. Another advantage of this research is to provide an extremely valuable investigation on the status of households defined by gender and on the status of firms defined by firms' characteristics (defined by firm size) during the COVID-19 pandemic. Another merit of this research is the use of new primary data to investigate the status of households and firms during the COVID-19 pandemic period in Sudan and to provide policy recommendations. These pertain to implement a more comprehensive and coherent strategy to adopt effective and preventive policy measures including sound economic and social measures to curb the further spread of the COVID-19 pandemic in Sudan, and to increase government support to manage the economic and social impacts on households, workers, and firms in Sudan.

Our results from the World Bank Survey on COVID-19 (2020) show the status during the COVID-19 pandemic, mainly, employment status that appears from the loss of jobs for the majority and nearly two thirds of households during June – July 2020. We explain that the main reason for the households' loss of job, unemployment and even changing jobs was due to business and government closure due to coronavirus legal restrictions that means mobility restrictions to reduce the incidence of COVID-19 pandemic in Sudan. In addition to the loss of payment for nearly a fifth of households, partial payment for nearly half of households, and loss and reduction of households' means of livelihood or source of income since mid-March 2020 from non-farm family business, income from properties, investments or savings, and income from family farming, livestock or fishing. The status of the micro, small and medium size enterprises appears from temporary or permanently close of establishments, substantial decrease in sales or stagnation in sales. Our results from ERF COVID MENA Monitor Survey data (2021) show the status of the labour market and working conditions during the COVID-19 pandemic period that appears from the increase in temporary or permanent layoff/suspension of workers, reduced hours, reduced wages, and delays in wage payment for workers in Sudan between April 2021 and August 2021, these results are consistent with the results in the MENA countries. Between April 2021 and August 2021 the delay in wage payment is more than doubled, the temporary layoff/suspension of workers increased from nearly tenth in April 2021 to nearly fifth in August 2021. In August 2021 the status of workers in business indicates temporary layoff/suspension for nearly fifth of workers, permanent layoff/suspension for nearly tenth of workers, and delay and change in wage payment for nearly a quarter of workers. Attainment of social insurance decreased from nearly third of all households in April 2021 compared to nearly a quarter of all households in August 2021.

We are aware that it would be interesting to add analysis according to classification of employment in formal jobs and informal jobs. But the lack of adequate data on formal and informal jobs and income and employment conditions constrained our paper to consider analysis of income and work conditions according to formal jobs/ informal jobs. We hope to conisder this interesting topic in our future research when adequate data on classification according to employment in formal jobs and informal jobs are available.

Our results are consistent with the results in the MENA literature concerning the impact of COVID-19 on MENA Labour Markets (e.g. Jordan, Egypt, Morocco and Tunisia) (cf. Krafft, Assaad, and Marouani, 2021a; b; c). Our results from ERF COVID MENA Monitor Survey data (2021) show the impacts of COVID-19 on labour market and working conditions that appears from the increase in temporary or permanent layoff/suspension of workers, reduced hours, reduced wages, and delays in wage payment for workers in Sudan between April 2021 and August 2021, these results are consistent with the results in the MENA countries (cf. Krafft, Assaad, and Marouani, 2021a, b). Between April 2021 and August 2021, the delay in wage payment is more than doubled, the temporary layoff/suspension of workers increased from nearly tenth in April 2021 to nearly fifth in August 2021. In August 2021 the status of workers in business indicates temporary layoff/suspension for nearly fifth of workers, permanent layoff/suspension for nearly tenth of workers, and delay and change in wage payment for nearly a quarter of workers. Attainment of social insurance decreased from nearly third of all households in April 2021 compared to nearly a quarter of all households in August 2021. Our results concerning the effects of COVID-19 on employers and the self-employed businesses reduced hours and lower revenues compared to 2019 in Sudan are consistent with the results in the MENA countries (cf. Krafft, Assaad, and Marouani, 2021b). Our results concerning the temporarily or permanently close of business due to factors related to COVID-19, reduction in business working hours, and the challenge facing businesses due to loss in demand, and access to customers due to mobility restrictions in Sudan are consistent with the results across MENA countries. From policy perspectives our findings that the most common types of support needed included business loans, salary subsidies and reduced/delayed taxes in Sudan are consistent with the results in the MENA countries (cf. Krafft, Assaad, and Marouani, 2021c). Our findings regarding limited provision of social protection (social insurance) and the importance of supporting social protection for workers in Sudan are consistent with the findings in the MENA countries (cf. Krafft, Assaad, and Marouani, 2021b, a). The major policy recommendation is increasing government support to manage COVID-19 economic and social impacts on workers in Sudan. Our results in this research regarding the status of households and firms during the COVID-19 pandemic period in Sudan are consistent with the findings in the MENA literature concerning the economic impact of COVID-19 in households and firms in the MENA countries (e.g. Jordan, Egypt, Morocco and Tunisia) (cf. recent studies based on the Economic Research Forum (ERF) COVID-19 MENA Monitor Data, 2020-2021) and in the international literature concerning the impact of coronavirus (COVID-19) on households and firms (cf. Morgan and Trinh, 2021).

From policy perspectives, our findings that the most common types of support needed included business loans, salary subsidies and reduced/delayed taxes in Sudan are consistent with the results in the MENA countries. Our findings regarding limited provision of social protection (social insurance) and the importance of supporting social protection for workers in Sudan are consistent with the findings in the MENA countries. (cf. Krafft, Assaad, and Marouani, 2021b, a, c)

We are aware that our results should be interpreted carefully in view of the fact that during the COVID-19 pandemic period Sudan not only suffered from the COVID-19 pandemic but also simultaneously suffered from critical economic crisis caused by economic instability and political instability that occurred even before the COVID-19 pandemic. This implies that it is hard to separate the impacts of the COVID-19 pandemic and the impacts of the critical economic crisis that occurred even before the COVID-19 pandemic. This also implies that it is difficult to determine whether the reported deterioration are due to factors related to the COVID-19 pandemic or due to other factors related to the critical economic crisis that occurred even before the COVID-19 pandemic.

From policy perspective, the findings from the ERF COVID MENA Monitor Sudan Survey data (2021) indicate that, from the point of view of the respondent firms, the most needed policy instruments to support business over COVID-19 crisis should include among others: the subsidized provision of specific products, inputs or services, business loans, rental or utilities subsidies or deferrals, reduction or delay in taxes, cash transfers or unemployment benefits and partial or total salary subsidies. From a policy perspective, the results from the World Bank Survey on COVID-19 (2020) shows that from the establishments' perspective the most needed government policies to support the business over the COVID-19 crisis are subsidized provision of products and services by suppliers, cash transfer and unemployment benefits, deferral of rent, mortgage, or utilities, fiscal exemptions or reductions, tax deferral, access to new credit, wage subsidies, salary subsidies, loans with subsidized interest rates, deferral of credit payments and suspension of interest payments.

Finally, we recommend the implementation of more comprehensive and coherent and sound strategy to increase government support to manage the economic and social impacts on households, workers, and firms in Sudan and MENA countries.

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List of abbreviations

CBS	Central Bureau of Statistic
CMMHH	COVID-19 MENA Monitor Household Survey
GDP	Gross Domestic Product
ILO	International Labour Organization
IMF	International Monetary Fund
MENA	Middle East and North Africa
MSME	Micro, Small and Medium Enterprises
OxCGRT	Oxford COVID-19 Government Response Tracker
SHO	Sudan Health Observatory
WB	World Bank
WHO	World Health Organization

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